



February 15, 2005

DCN: C00-SAI-90499-01-06829

Mr. Mark Lafferty  
Chevron Environmental Management Company  
6001 Bollinger Canyon Road, Building K  
San Ramon, California 94583-0804

Re: *Well Destruction and Well Installation Activities*  
Chevron Service Station 9-0499  
404 Soquel Avenue  
Santa Cruz, California

Dear Mr. Lafferty:

Science Applications International Corporation (SAIC) has prepared this report on behalf of Chevron Environmental Management Company (ChevronTexaco) to document field activities at the referenced site. This work was performed in accordance with the SAIC *Work Plan for Well Destructions and Replacement*, dated December 1, 2003, which was approved by the California Regional Water Quality Control Board (RWQCB) Central Coast Region in a letter to ChevronTexaco dated December 4, 2003. The following documents well destruction and well installation activities performed at the site on December 22, 2003 and April 29, 2004, respectively. These activities were implemented as part of a station upgrade project.

## **SITE HISTORY**

### **Site Description**

The site is located at the northeastern corner of Soquel Avenue and Ocean Street in Santa Cruz, California (Figure 1). Currently, the property is occupied by an active Chevron-branded service station. Four 12,000-gallon double-wall fiberglass USTs (three for unleaded gasoline and one for methanol storage) were located in the southern section of the site, and three product dispenser islands were located in the northern and central portions of the site. The service station building included three hydraulic hoists and one clarifier. A 50-gallon hydraulic oil tank and a 1,000-

gallon waste oil UST were located southeast of the station building. All of these structures were removed in February 2004.

The removed USTs were replaced with two gasoline USTs located in a common excavation in the southwestern portion of the site. In addition, six product dispenser islands were installed in the central portion of the site. The station building is located in the southeast corner of the property. Current and former station features are included on Figure 2.

### **Previous Investigations**

**Soil and Groundwater Assessment, 1988 through 1991:** ChevronTexaco began investigations of soil and groundwater conditions beneath the site in June 1988 when petroleum hydrocarbon odors were noted in an excavation for a Chevron sign located in the northwest corner of the site. In July 1988, ChevronTexaco completed a soil gas survey, which revealed the presence of petroleum hydrocarbons in soils beneath the site. That same year, monitoring wells MW-1 through MW-6 were installed to assess groundwater conditions (Figure 2). Separate-phase petroleum hydrocarbons (SPH) were measured in Well MW-4, located near the UST complex.

In February 1989, ChevronTexaco completed a second soil gas survey to assess whether petroleum hydrocarbons had migrated offsite. The second soil gas survey revealed the possibility of two plumes: first in the area of the UST complex in the southern portion of the site; and second, on the northwest portion of the site.

In July 1989, ChevronTexaco installed four additional wells, MW-7 through MW-10, to further delineate the extent of the groundwater plume. In July 1991, ChevronTexaco installed extraction wells E-1 and E-2. Well E-2 was installed as a replacement for Well MW-6.

**Well Destructions, 1991:** In April 1991, ChevronTexaco destroyed wells MW-1, MW-2 and MW-4. Wells MW-2 and MW-4 were located adjacent to the UST complex in the southern portion of the site, and Well MW-1 was located adjacent to the waste oil UST in the southeastern portion of the site. The wells were drilled out to facilitate the removal and replacement of the USTs.

**UST and Product Piping Replacement and Sampling, 1991:** In May 1991, ChevronTexaco removed one 1,000-gallon waste oil UST located in the southeast portion of the site, and one 6,000-gallon and two 10,000-gallon gasoline USTs located in a common excavation in the south portion of the site. The resulting waste oil UST excavation measured 10 feet by 10 feet by 13 feet deep. The gasoline UST excavation measured approximately 38 feet long by 32 feet wide. Groundwater was encountered at a depth of 13 feet below ground surface (bgs). Approximately 672 cubic yards (cyds) of soil were removed from the gasoline UST excavation, and approximately 125 cyds soil were removed from the waste oil UST excavation.

One soil sample was collected at a depth of 13 feet bgs from the center of the waste oil UST excavation. A total of eight soil samples were collected from the sidewalls of the gasoline UST excavation at a depth of 12 feet bgs. In addition, two groundwater samples were collected from the gasoline UST excavation. Gasoline range total petroleum hydrocarbons (TPH<sub>g</sub>) was detected in two samples collected from the northwest sidewall of the gasoline UST excavation (in the area of former Well MW-4) at 1,800 parts per million (ppm) and 220 ppm. The groundwater samples contained concentrations of TPH<sub>g</sub> at 200,000 parts per billion (ppb) and 1,000,000 ppb and benzene at 2,900 ppb and 4,100 ppb. No petroleum hydrocarbon constituents were detected in the soil sample collected from the waste oil excavation.

A total of six soil samples were collected beneath the locations of removed product piping and dispensers at depths between 2 and 4 feet bgs. TPH<sub>g</sub> was detected in three soil samples at concentrations ranging from 1.4 ppm to 3.2 ppm. Benzene was detected in four soil samples at concentrations ranging from 0.046 ppm to 0.30 ppm.

During utility trenching, the contractor encountered what appeared to be petroleum hydrocarbons in soil in the northwest corner of the site. Approximately 10 cyds of soil were excavated from this area. One soil sample was collected at the base of the excavation at 13 feet bgs and contained 190 ppm TPH<sub>g</sub> and 0.076 ppm benzene.

**UST and Product Piping Sampling, 2004:** On February 26, 2004, SJ Weaver & Associates (SJ Weaver) of Signal Hill, California, performed the station demolition and UST, line and dispenser removal activities. Four 12,000-gallon fuel USTs, one 1,000-gallon waste oil UST, one 50-gallon hydraulic oil tank, and associated product dispensers and piping were removed, inspected and transported off-site for disposal. In addition, three hydraulic hoists and a clarifier were removed during the demolition of the station building prior to February 26, 2004. SAIC collected eight UST excavation soil samples, seven product dispenser soil samples, four product piping soil samples, one waste oil UST soil sample, one hydraulic oil tank soil sample, one clarifier soil sample, and three hoist soil samples during the February 2004 UST and dispenser piping removal event.

The UST excavation was completed to an approximated depth of 14 feet bgs. SAIC collected a 'grab' groundwater sample from the standing water, which was present in the UST excavation at a depth of approximately 10 feet bgs. Concentrations of 20,000 ppb TPH<sub>g</sub>, 330 ppb benzene, 260 ppb methyl tert-butyl ether (MTBE), 70,000 ppb methanol, and 19,000 ppb ethanol were detected in the groundwater sample. All other fuel oxygenates were not detected at or above the respective laboratory reporting limits in the groundwater sample collected from the UST excavation. Approximately 250 cyds of pea gravel from the UST pit were stockpiled, sampled, and subsequently used as backfill upon approval of Santa Cruz County Environmental Health Service Agency (SCCEHSA) inspector.

On March 9, 2004, the area of the former clarifier was over-excavated to a depth of approximately 9 feet bgs. SAIC collected a soil sample from the bottom of the excavation. An estimated 6 cyds of soils from the over-excavation activities were removed, stockpiled, and sampled. Upon receipt of the laboratory analytical results that yielded no TPHg, benzene, toluene, ethylbenzene, xylenes (BTEX), or MTBE at or above laboratory reporting limits in soils greater than 6 feet bgs, the over-excavated pit was backfilled with the stockpiled soils as approved by the SCCEHSA inspector.

On April 12, 2004, SJ Weaver unearthed an unidentified 200-gallon UST containing approximately 100 gallons of used oil. The area was over-excavated to a depth of approximately 9.5 feet bgs on April 15, 2004. SAIC collected four soil samples from the unidentified used oil UST excavation. An estimated 50 cyds of soils were removed, stockpiled, and sampled.

Based on soil analytical results, low concentrations of petroleum hydrocarbons and MTBE were detected in soils during the fuel UST, product dispenser, and piping removal activities. Given these analytical results, the SCCEHSA inspector did not require additional soil excavation. Upon further investigation of soils beneath the clarifier located on the eastern portion of the property, and the unidentified used oil UST located in the central portion of the site, additional soil excavation was not necessary.

**Groundwater Monitoring, 1988 through 2004:** Groundwater has been monitored and sampled at the site on a quarterly basis from 1988 to 1995, and on a semi-annual basis from 1996 to the present. Petroleum hydrocarbons have been detected in wells located near the UST complex (wells MW-2, MW-3 and MW-4) and in the northwest corner of the site (wells E-1 and E-2).

### **Hydrogeology**

The site lies at an elevation of approximately 32 feet above mean sea level. Subsurface conditions have been explored to depths of up to approximately 24.5 feet bgs. Previous investigations have shown the site to be underlain with unconsolidated fine- and coarse-grained alluvial deposits. In general, silty clay occurs from below the paved surface to depths ranging from 3 to 6 feet bgs. The fine-grained surficial soils were underlain by horizons of sandy clay and gravelly sand to depths of up to 23 feet bgs. A siltstone unit was encountered below the unconsolidated clays and sands at depths greater than 19 feet bgs.

Groundwater occurs beneath the site at depths between approximately 6 and 14 feet bgs, and has been consistently calculated to flow in a westerly to northwesterly direction at a very shallow gradient.

### **SCOPE OF WORK**

Prior to station renovation activities, SAIC properly destroyed groundwater monitoring wells

MW-3 and MW-5. Following site construction activities, SAIC installed one replacement monitoring well, designated MW-3A, in the downgradient direction (west) of the former and existing UST system.

### **Pre-Field Activities**

Well destruction permits for groundwater monitoring wells MW-3 and MW-5, and a well construction permit for Well MW-3A were obtained from the SCCEHSA prior to commencing field activities (Attachment A). SAIC prepared a site-specific health and safety plan, scheduled an inspector from the SCCEHSA, and contacted Underground Service Alert at least 48 hours prior to drilling activities.

### **Well Destruction Activities**

The well destructions were completed on December 22, 2003. Prior to drilling, the well boxes were removed using a jack hammer. Monitoring wells MW-3 and MW-5 were destroyed by over-drilling the well casings using a hollow-stem auger drill rig provided by Gregg Drilling of Martinez, California. To comply with SCCEHSA requirements, the wells were drilled out to remove all well casing and annular filter pack material. Each well was drilled out to total well depth using 10-inch diameter hollow-stem augers. The well borings were then filled to the ground surface with neat cement. A SCCEHSA inspector observed and approved the well destructions. The locations of the destroyed wells are presented in Figure 2.

Approximately two cyds of drill cuttings generated from the drilling activities were stockpiled on-site. A four-point composite sample was collected from the stockpile and submitted for chemical analyses to a California state-certified analytical laboratory to characterize the soil for disposal. The stockpile was transported on January 5, 2004, by IWM, Inc. (IWM), of Milpitas, California, to the Republic Services Vasco Road Landfill in Livermore, California.

### **Well Installation Activities**

SAIC installed groundwater monitoring Well MW-3A on April 29, 2004. The well boring was drilled to a total depth of 20 feet bgs using 10-inch diameter hollow-stem auger drilling equipment. Soil samples for lithologic logging and potential laboratory analysis were collected at approximate 5-foot depth intervals using a split-spoon sampler lined with 2-inch diameter brass liners. An SAIC field geologist logged the well boring using the Unified Soil Classification System and standard geologic techniques, and field screened selected soil samples for petroleum hydrocarbons using a photo-ionization detector. The borehole was converted to a groundwater monitoring well by the installation of 4-inch diameter Schedule 40 polyvinyl chloride well casing. The well was installed with the 0.020-inch factory-slotted screened interval placed between the depths of 6 and 20 feet bgs. Upon completion of well construction activities,

the well was fitted with a locking cap. A flush-mounted traffic rated well box was installed over the wellhead after station upgrade activities were completed. The boring log with well construction details for Well MW-3A is presented in Attachment B.

Soil samples for potential laboratory analysis were sealed, labeled, and placed in an ice-filled cooler. The samples were submitted to a California state-certified analytical laboratory under chain-of-custody documentation. The soil samples were analyzed for the presence of TPHg, ethanol, and methanol by EPA Method 8015; benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) and fuel oxygenates MTBE, di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), and 1,2-dibromoethane (EDB) by EPA Method 8260B.

Approximately 2.5 cyds of drill cuttings generated from the drilling activities were stockpiled on site pending consideration of disposal options. A four-point composite sample was collected from the stockpile and submitted for chemical analyses to a California state-certified analytical laboratory to characterize the soil for disposal. The stockpile was transported on June 1, 2004, by IWM to Republic Services Vasco Road Landfill in Livermore, California.

### **Monitoring Well Survey**

Morrow Surveying of West Sacramento, California performed a well survey of all site wells on July 8, 2004. The wellheads and well box of each site well was surveyed for northing and easting, elevation, and latitude and longitude for reporting to the State of California Geotracker database. The survey data for wells MW-3A, MW-7 through MW-10, E-1 and E-2 is presented in Attachment C.

### **Groundwater Sampling Activities**

On July 8, 2004, Well MW-3A was gauged, developed, and sampled by Gettler-Ryan, Inc. (G-R) of Dublin, California. Groundwater samples from all site wells were collected and placed in appropriate Environmental Protection Agency (EPA)-approved containers. The groundwater samples were labeled, placed in an ice-filled cooler, and transported under chain-of-custody to a California state-certified analytical laboratory for analysis. The groundwater samples for all site wells were analyzed for presence of TPHg and methanol by EPA Method 8015; BTEX compounds and MTBE by EPA Method 8021; and ethanol by EPA Method 8260B. The groundwater samples collected from wells MW-3A, MW-7, MW-9, E-1, and E-2 were also analyzed for fuel oxygenates MTBE, DIPE, ETBE, TAME, and TBA by EPA Method 8260. The groundwater samples from wells MW-3A and E-1 were also analyzed for the fuel oxygenate 1,2-DCA by EPA Method 8260.

The G-R semi-annual groundwater monitoring and sampling report is presented in Attachment D.

The G-R report includes well development field data sheet for Well MW-3A, field sampling data for each well sampled, tabulated historical and current groundwater elevation and analytical data, copies of certified analytical reports and chain-of-custody forms, and potentiometric surface map.

## **FINDINGS**

### **Subsurface Conditions**

Soils encountered during this investigation and previous investigations have shown the site to be underlain with unconsolidated fine- and coarse-grained alluvial deposits. Silt was encountered from below the paved surface to approximately 6 feet bgs. Underlying the silt unit, a coarse-grained horizon of sand was encountered from approximately 6 to 19 feet bgs. A siltstone unit was encountered beneath the sand at a depth below 19 feet bgs.

First-encountered groundwater in Well MW-3A was gauged at a depth of approximately 11 feet bgs on April 29, 2004. During well gauging and groundwater sampling activities performed by G-R on July 8, 2004, groundwater occurred in site wells at depths between 6.38 feet bgs to 10.78 feet bgs. Based on these data, groundwater flow beneath the site was calculated to be toward the northwest at hydraulic gradient of 0.002 to 0.007 foot/foot.

### **Soil Analytical Data**

Selected soil samples collected from boring MW-3A were analyzed for the presence of TPHg, BTEX, and fuel oxygenates MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, EDB, ethanol, and methanol.

TPHg, BTEX, and fuel oxygenates DIPE, ETBE, EDB, 1,2-DCA, methanol, and ethanol were not detected at or above laboratory reporting limits. The highest concentration of 0.082 ppm MTBE was detected in the soil sample collected at a depth of 6 feet bgs. TAME and TBA were only detected in the soil sample collected at a depth of 6 feet bgs, at concentrations of 0.026 ppm and 0.13 ppm, respectively.

Soil analytical data are presented in Table 1, and the certified analytical report with chain-of-custody documentation is presented in Attachment E.

### **Groundwater Analytical Data**

Groundwater samples were collected from all site wells by G-R during the second semi-annual 2004 sampling event. The groundwater samples were analyzed for TPHg, BTEX, MTBE, methanol and ethanol. Selected groundwater samples were also analyzed for fuel oxygenates DIPE, ETBE, TAME, TBA, and/or 1,2-DCA.

BTEX and fuel oxygenates DIPE, TBA, ETBE, methanol, and ethanol were not detected at or above laboratory reporting limits in the groundwater samples collected from site wells. The highest concentration of TPHg was detected at 170 ppb in Well E-1. The highest concentrations of MTBE and TAME were detected in Well MW-3A at concentrations of 45 ppb and 9 ppb, respectively.

Groundwater analytical data are summarized in the G-R semi-annual groundwater monitoring and sampling report in Attachment D. The distribution of dissolved TPHg, benzene, MTBE concentrations is presented on Figure 3.

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on a review of the current and historical groundwater data for the site, it appears that the dissolved petroleum hydrocarbon plume is stable and localized in the area of the former gasoline UST complex. Monitoring Well MW-3A has been added to the site groundwater monitoring and sampling program. SAIC recommends continuing groundwater monitoring and sampling activities for all site wells on a semi-annual basis. The next monitoring and sampling event is scheduled during January 2005.





## CLOSING

Should you have any questions or comments regarding the contents of this letter, please contact Joe Muzzio of SAIC at (408) 356-0200.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

  
Aja Yee  
Staff Geologist

  
Joseph Muzzio  
Program Manager  
C.E.G. 1672

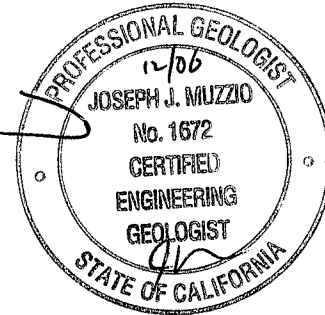


Table: 1 – Soil Analytical Data

Figures: 1 – Site Vicinity Map  
2 – Extended Site Map  
3 – Dissolved Petroleum Hydrocarbon Concentration Map

Attachments: A – Well Destruction Permits  
B – Boring Log  
C – Morrow Surveying Well Survey Data  
D – Gettler- Ryan Inc. Semi-Annual Monitoring and Sampling Report  
E – Certified Analytical Reports and Chain-of-Custody Documentation

cc: Mr. Stephen Baiocchi, Santa Cruz County Environmental Health Department, 701 Ocean Street, Room 312, Santa Cruz, California 95060  
Mr. Tom Sayles, Regional Water Quality Control Board, Central Coast Region  
895 Aerovista Place, Suite 101, San Luis Obispo, CA 93401-7906  
SAIC Document Control File

**TABLE 1**  
**SOIL ANALYTICAL DATA**

ChevronTexaco Service Station 9-0499  
404 Soquel Avenue  
Santa Cruz, CA

Sample ID	Sample Depth (feet)	Date Sampled	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)
MW-3A	6	04/29/04	<1.0	<0.0005	<0.001	<0.001	<0.001	0.082	<0.001	<0.001	0.026	0.13	<0.001	<0.001	<0.20	<0.20
	9	04/29/04	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001	<0.20	<0.20
	15	04/29/04	<1.0	<0.0005	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001	<0.20	<0.20
	19	04/29/04	<1.0	<0.0005	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001	<0.20	<0.20

**Abbreviations:**

TPHg = Total petroleum hydrocarbons calculated as gasoline  
 MTBE = Methyl tert-butyl ether  
 DIPE = Di-isopropyl ether  
 ETBE = Ethyl tert-butyl ether  
 TAME = Tert-amyl methyl ether  
 TBA = Tert-butyl alcohol  
 1,2-DCA = 1,2-Dichloroethane  
 EDB = 1,2-Dibromoethane  
 mg/kg = milligrams per kilograms  
 <1.0 = Not detected at specified detection limit

**Notes:**

TPHg, ethanol and methanol analyses performed by EPA Method 8015B modified.  
 Benzene, toluene, ethylbenzene, total xylenes and fuel oxygenates MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, and EDB analyses performed by EPA Method 8260B.

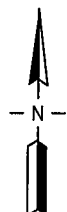


Source: USGS Quadrangle Map 7.5 Minute Series Township 11 South, Range 1 West, Santa Cruz, California

SITE LOCATION



QUADRANGLE LOCATION



0 2,000  
1 inch = 2,000 feet

## SITE VICINITY MAP

Chevron Station 9-0499

404 Soquel Avenue, Santa Cruz, California

Drawn	CTO	Checked	Approved	Figure <b>1</b>
Date	9/1/04	Date	Date	
Job no.	06-6102-00-3340-284	Date	File no.	

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International Corporation  
An Employee-Owned Company

FORMER ARCO  
SERVICE STATION

⊙ MW-1\*\*

⊙ MW-2\*\*

MW-7

SOQUEL AVENUE

MW-10

FORMER PRODUCT  
PIPING (REMOVED 2/04)

FORMER PRODUCT  
DISPENSER (TYPICAL)  
(REMOVED 2/04)

FENCE

FORMER HYDRAULIC  
OIL TANK  
(REMOVED 2/04)

MW-1

FORMER  
WASTE  
OIL TANK  
(REMOVED 2/04)

TRASH ENCLOSURE

FORMER  
UNDERGROUND FUEL  
STORAGE TANKS  
(REMOVED 2/04)

OCEAN STREET

E-1

MW-3A

MW-4

MW-3 UST

UNDERGROUND  
FUEL STORAGE  
TANKS

MW-4\*

MW-2\*

⊙ MW-5

UNOCAL  
SERVICE STATION

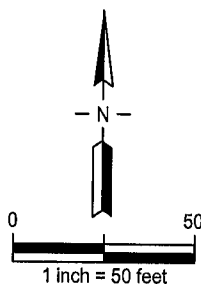
MW-1\*

MW-8

MW-9

# LEGEND

- ⊙ MONITORING WELL
- \*\*⊙ MONITORING WELL (ARCO)
- \*⊙ MONITORING WELL (UNOCAL)
- ⊕ EXTRACTION WELL
- ⊘ ABANDONED WELL
- - - DISPENSER PIPING



## EXTENDED SITE MAP

**Chevron Station 9-0499**

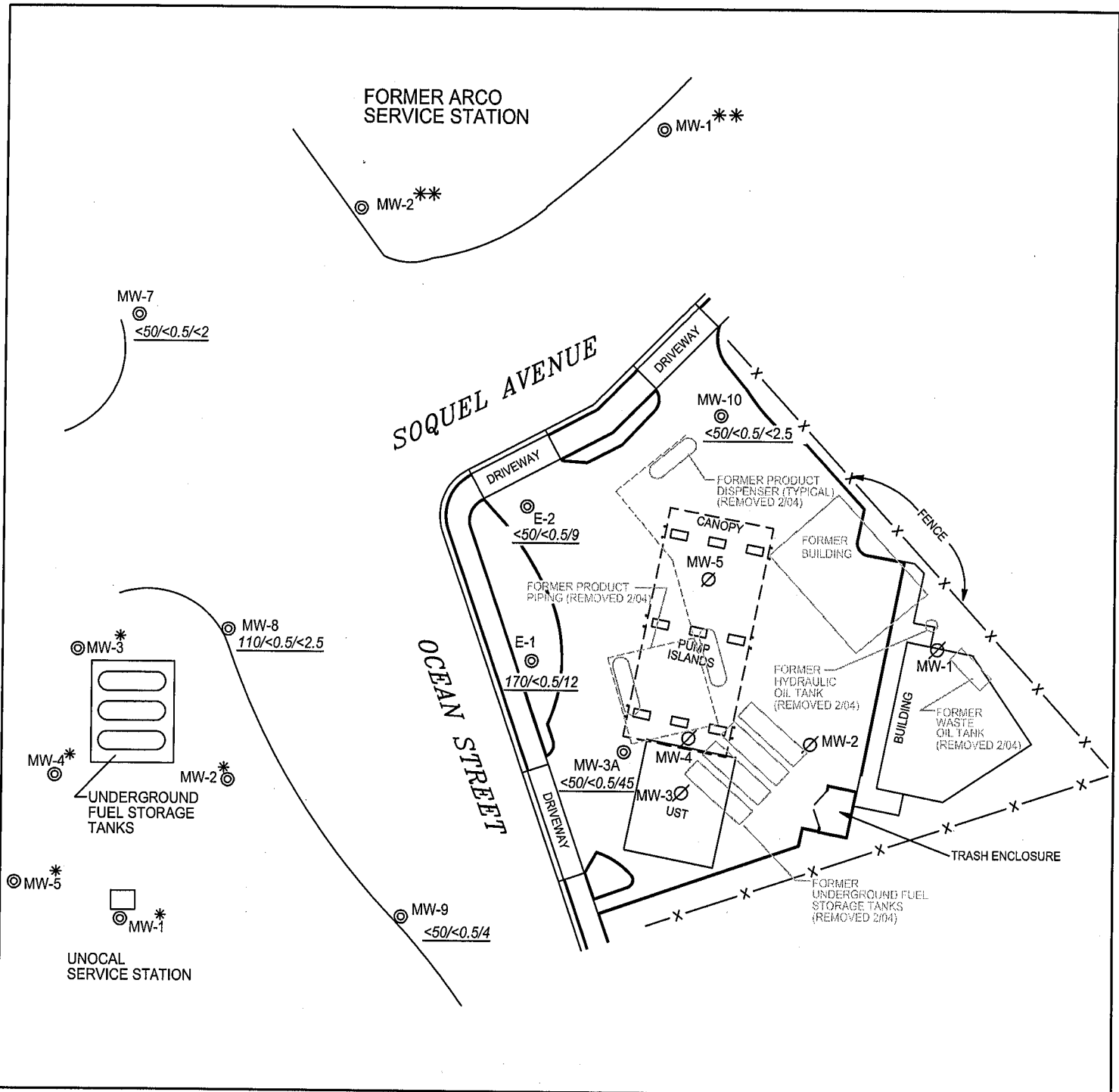
404 Soquel Avenue, Santa Cruz, California

Drawn	CTO	Checked	Approved
Date	9/1/04	Date	Date
Job no.	06-6102-00-3340-284	File no.	

Figure

**2**

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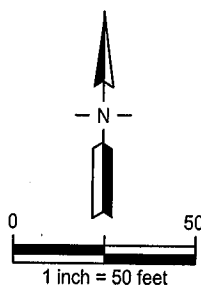
#### LEGEND

- ⊙ MONITORING WELL
- \*\*\*⊙ MONITORING WELL (ARCO)
- \*⊙ MONITORING WELL (UNOCAL)
- ⊕ EXTRACTION WELL
- ⊘ ABANDONED WELL
- DISPENSER PIPING

<50/<0.5/<2 TPHg/Benzene/MTBE Concentrations in Groundwater in Micrograms per Liter (ug/L)

TPHg Total Petroleum Hydrocarbons Quantified as Gasoline

MTBE Methyl Tertiary Butyl Ether



#### Dissolved Petroleum Hydrocarbon Concentration Map

**Chevron Station 9-0499**

404 Soquel Avenue, Santa Cruz, California

Drawn CTO	Checked	Approved	Figure
Date 12/28/04	Date	Date	3
Job no. 06-6102-00-3340-284	File no.		

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**ATTACHMENT A**  
**WELL DESTRUCTION PERMITS**

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**APPLICATION FOR WELL PERMIT**

DEC 04 2003

☐ NEW ☐ REPLACEMENT ☐ SUPPLEMENTAL ☒ DESTRUCTION ☐ OTHER ☐ MONITORING WELL

ENVIRONMENTAL  
HEALTH SERVICES  
#03-242

010-051-46

27,968 sq. ft.

(ASSESSOR'S PARCEL NUMBER)

(PARCEL SIZE)

(PERMIT #)

(ENVISION #)

PROGRAM ELEMENT

SITE ADDRESS 404 Soquel Ave., Santa Cruz, CA 95062

OWNER Mark Lafferty ADDRESS 6001 Bollinger Canyon Rd. Bldg. L, San Ramon, CA 94583

DRILLING CONTRACTOR Gregg Drilling, Inc. LICENSE # 485165 PHONE (925) 313-5800

DIRECTIONS TO SITE SE Corner Soquel Ave. & Ocean St., Santa Cruz, CA 95062

**DESIGN SPECIFICATIONS:**

**INTENDED USE**

DOMESTIC: ☐

#Homes Served           

WATER SYSTEM WELL: ☐

Name of Water System           

IRRIGATION ☐

COMMERCIAL/INDUSTRIAL ☐

MONITORING: ☒

GRDWTR ☒ VADOSE ☐

OTHER:            (SPECIFY)

WITHIN WATER DISTRICT SERVICE AREA ☐ NO ☐ YES NAME:            (FORM

HSA-579-REQUIRED)

**CONSTRUCTION**

DEPTH (FT.)           

DIAMETER (IN.)           

DEPTH OF SEAL (FT.)           

WIDTH OF SEAL (IN.)           

**EXISTING WELLS ON PROPERTY:**

- OTHER WELLS ON PROPERTY: NUMBER: 3 TYPES: DOMESTIC ☐ IRRIGATION ☐ COMMERCIAL USE ☐ OTHER extraction/monitoring
- CONDITION OF OTHER WELLS ON PROPERTY: IN USE ☒ TO BE DESTROYED ☐
- IF NEW WELL REPLACES AN EXISTING WELL, INDICATE INTENTIONS FOR USE OF REPLACED WELL:  
☐ TO SUPPLEMENT NEW WELL ☐ TO BE DESTROYED ☐ OTHER

**WELL DESTRUCTION:**

DEPTH OF WELL 16' DEPTH OF SEAL: 4 NUMBER OF WATER FORMATIONS PENETRATED 1  
CLEANING OF WELL REQUIRED YES: ☐ NO: ☒ SEALING MATERIAL neat cement

mw-3

**PLOT PLAN: ATTACH 2 COPIES OF PLOT PLAN (SEE REVERSE FOR REQUIREMENTS)**

I HEREBY AGREE TO COMPLY WITH ALL LAWS AND REGULATIONS OF THE COUNTY OF SANTA CRUZ AND STATE OF CALIFORNIA PERTAINING TO WELL CONSTRUCTION, AND DECLARE UNDER PENALTY OF PERJURY THE INFORMATION SUBMITTED ON THIS APPLICATION IS TRUE AND CORRECT. I WILL CONTACT THE ENVIRONMENTAL HEALTH SERVICE WHEN I COMMENCE THE WORK. WITHIN 15 DAYS AFTER COMPLETION OF WORK I WILL FURNISH THE ENVIRONMENTAL HEALTH SERVICE A REPORT OF THE WORK PERFORMED AND NOTIFY THEM BEFORE PUTTING THE WELL INTO USE. I UNDERSTAND THAT THIS PERMIT EXPIRES ONE YEAR FROM DATE OF ISSUANCE. I UNDERSTAND APPROVAL OF THE WELL PERMIT DOES NOT INDICATE WHETHER THIS PROPERTY IS SUITABLE FOR AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM OR THAT A PERMIT TO INSTALL SUCH SYSTEM WILL BE GRANTED.

**WORKER'S COMPENSATION CERTIFICATE**

A CURRENTLY EFFECTIVE CERTIFICATION OF WORKERS COMPENSATION INSURANCE IS ON FILE WITH THIS OFFICE.

INSURANCE CARRIER Insurance Company of the State of Pennsylvania POLICY # WC 5211061

I CERTIFY THAT IN THE PERFORMANCE OF THE WORK FOR WHICH THIS PERMIT IS ISSUED I SHALL NOT EMPLOY ANY PERSON IN ANY MANNER SO AS TO BECOME SUBJECT TO THE WORKER'S COMPENSATION LAWS OF CALIFORNIA

PROPERTY OWNER (see attached signed copy) DRILLING CONTRACTOR (see attached signed copy)

ENVIRONMENTAL ASSESSMENT REQUIRED YES ☐ NO ☒ **FOR OFFICE USE ONLY:**

METER REQUIRED YES ☒ NO ☐ METER INSTALLED            DATE            READING           

SITE INSPECTION

APPLICATION APPROVAL

PAD INSPECTION

RECEIPT OF WELL LOG

FINAL

DATE

12/11/03

12/11/03

12/22/03

EHS SPECIALIST

[Signature]

[Signature]

[Signature]

**ANNULAR WELL SEAL WITNESSED:**

☒ YES DATE 12/22/03

☐ NO DEPTH 16'

SEAL MATERIAL Cement

#SACKS CEMENT/YARD 5 Sack

COMMENTS: Regional Board approved workplan Dated 12/1/03

FORMER ARCO  
SERVICE STATION

SOQUEL AVENUE

SITE LOCATION

SERVICE ISLAND

BUILDING

HYDRAULIC  
OIL TANK

WASTE  
OIL TANK

PLANTER

UNDERGROUND FUEL  
STORAGE TANKS

AWNING

Santa Cruz County  
ENV HEALTH SERVICE

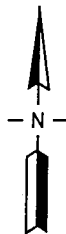
APPROVED BY

DATE

PERMIT NO

EXPLANATION

- ⊙ MONITORING WELL
- ⊙\*\* MONITORING WELL (ARCO)
- ⊙\* MONITORING WELL (UNOCAL)
- ⊕ EXTRACTION WELL
- ⊗ ABANDONED WELL
- ⊗ MONITORING WELL TO BE ABANDONED  
MW-3 TO BE REPLACED



0 60  
1 inch = 60 feet

SITE MAP

Chevron Station 9-0499

404 Soquel Avenue, Santa Cruz, California

Drawn	CTO	Checked	Approved	Figure
Date	11/14/03	Date	Date	1
Job no.	00-0000-00-0000-000	File no.		

**SAIC** Science Applications  
International Corporation  
An Employee-Owned Company



# **APPLICATION FOR WELL PERMIT**

☐ NEW ☐ REPLACEMENT ☐ SUPPLEMENTAL ☒ DESTRUCTION ☐ OTHER ☒ MONITORING WELL

010-051-46 (ASSESSOR'S PARCEL NUMBER) 27,968 sq.ft. (PARCEL SIZE) #03-243 (PERMIT #) (ENVISION #) PROGRAM ELEMENT  
 SITE ADDRESS 404 Soquel Ave., Santa Cruz, CA 95062  
 OWNER Mark Lafferty ADDRESS 6001 Bollinger Canyon Rd. Bldg. L, San Ramon, CA 94583  
 DRILLING CONTRACTOR Gregg Drilling, Inc. LICENSE # 485165 PHONE (925) 313-5800  
 DIRECTIONS TO SITE SE Corner Soquel Ave & Ocean St., Santa Cruz, CA 95062

## **DESIGN SPECIFICATIONS:**

### **INTENDED USE**

DOMESTIC: \_\_\_\_\_  
 #Homes Served \_\_\_\_\_  
 WATER SYSTEM WELL: \_\_\_\_\_  
 Name of Water System \_\_\_\_\_

IRRIGATION \_\_\_\_\_  
 COMMERCIAL/INDUSTRIAL \_\_\_\_\_  
 MONITORING: ☒  
 GRDWTR ☒ VADOSE \_\_\_\_\_

OTHER: \_\_\_\_\_ (SPECIFY)

WITHIN WATER DISTRICT SERVICE AREA \_\_\_\_\_ NO \_\_\_\_\_ YES NAME: \_\_\_\_\_ (FORM HSA-579-REQUIRED)

**CONSTRUCTION** DEPTH (FT.) \_\_\_\_\_ DIAMETER (IN.) \_\_\_\_\_ DEPTH OF SEAL (FT.) \_\_\_\_\_ WIDTH OF SEAL (IN.) \_\_\_\_\_

### **EXISTING WELLS ON PROPERTY:**

- OTHER WELLS ON PROPERTY: NUMBER: 3 TYPES: DOMESTIC \_\_\_\_\_ IRRIGATION \_\_\_\_\_ COMMERCIAL USE \_\_\_\_\_ OTHER extraction/monitoring
- CONDITION OF OTHER WELLS ON PROPERTY: IN USE ☒ TO BE DESTROYED \_\_\_\_\_
- IF NEW WELL REPLACES AN EXISTING WELL, INDICATE INTENTIONS FOR USE OF REPLACED WELL:  
 \_\_\_\_\_ TO SUPPLEMENT NEW WELL \_\_\_\_\_ TO BE DESTROYED \_\_\_\_\_ OTHER \_\_\_\_\_

### **WELL DESTRUCTION:**

MW-5 DEPTH OF WELL 20.5 DEPTH OF SEAL: 7 NUMBER OF WATER FORMATIONS PENETRATED 1  
 CLEANING OF WELL REQUIRED YES: \_\_\_\_\_ NO: \_\_\_\_\_ SEALING MATERIAL \_\_\_\_\_

**PLOT PLAN: ATTACH 2 COPIES OF PLOT PLAN (SEE REVERSE FOR REQUIREMENTS)**

I HEREBY AGREE TO COMPLY WITH ALL LAWS AND REGULATIONS OF THE COUNTY OF SANTA CRUZ AND STATE OF CALIFORNIA PERTAINING TO WELL CONSTRUCTION, AND DECLARE UNDER PENALTY OF PERJURY THE INFORMATION SUBMITTED ON THIS APPLICATION IS TRUE AND CORRECT. I WILL CONTACT THE ENVIRONMENTAL HEALTH SERVICE WHEN I COMMENCE THE WORK. WITHIN 15 DAYS AFTER COMPLETION OF WORK I WILL FURNISH THE ENVIRONMENTAL HEALTH SERVICE A REPORT OF THE WORK PERFORMED AND NOTIFY THEM BEFORE PUTTING THE WELL INTO USE. I UNDERSTAND THAT THIS PERMIT EXPIRES ONE YEAR FROM DATE OF ISSUANCE. I UNDERSTAND APPROVAL OF THE WELL PERMIT DOES NOT INDICATE WHETHER THIS PROPERTY IS SUITABLE FOR AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM OR THAT A PERMIT TO INSTALL SUCH SYSTEM WILL BE GRANTED.

### **WORKER'S COMPENSATION CERTIFICATE**

A CURRENTLY EFFECTIVE CERTIFICATION OF WORKERS COMPENSATION INSURANCE IS ON FILE WITH THIS OFFICE.  
 INSURANCE CARRIER Insurance Company of the State of Pennsylvania POLICY # WC 5211061  
 I CERTIFY THAT IN THE PERFORMANCE OF THE WORK FOR WHICH THIS PERMIT IS ISSUED I SHALL NOT EMPLOY ANY PERSON IN ANY MANNER SO AS TO BECOME SUBJECT TO THE WORKER'S COMPENSATION LAWS OF CALIFORNIA

PROPERTY OWNER (see attached signed copy) DRILLING CONTRACTOR (see attached signed copy)

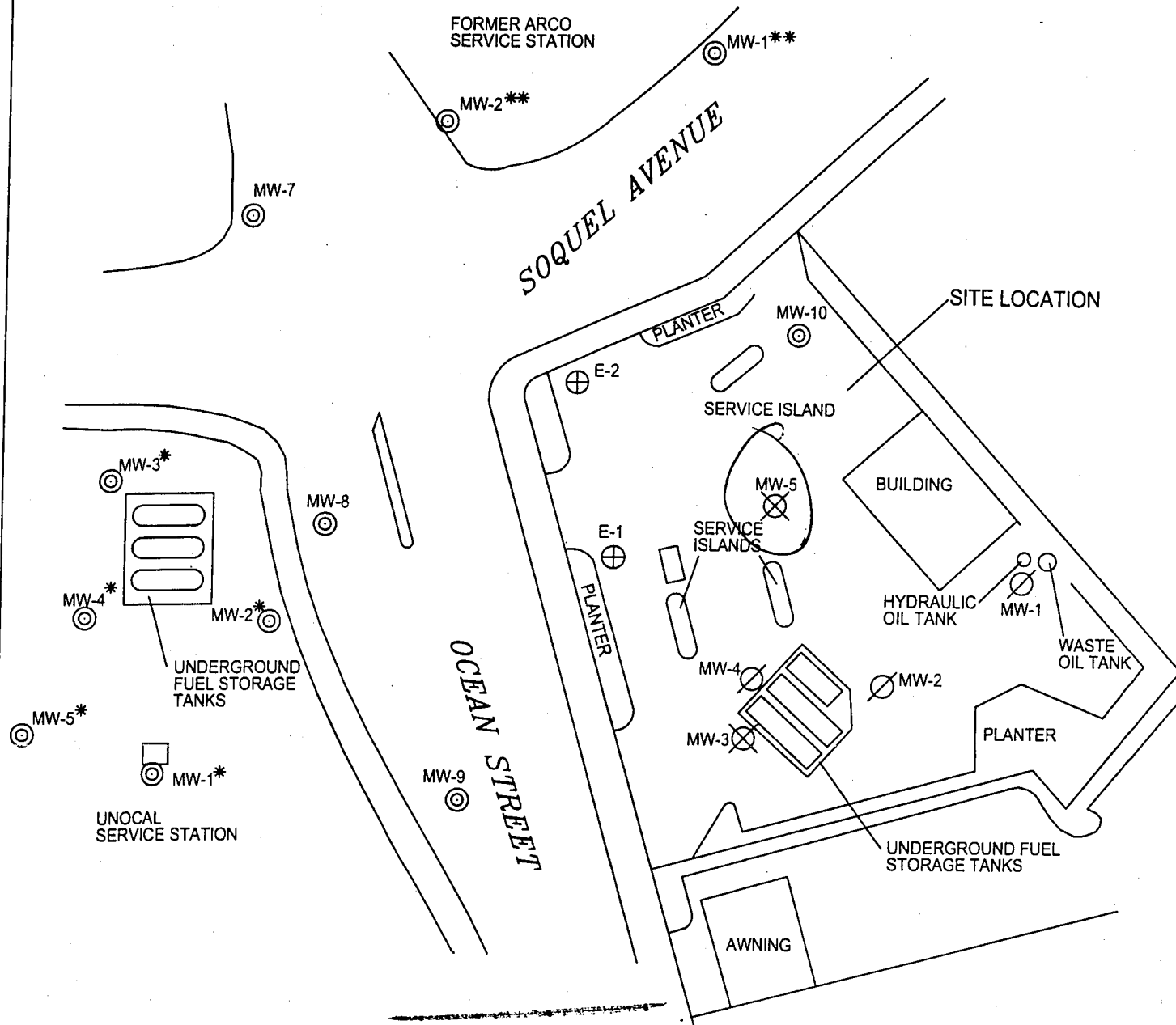
ENVIRONMENTAL ASSESSMENT REQUIRED YES \_\_\_\_\_ NO ☒ **FOR OFFICE USE ONLY:**

METER REQUIRED YES N/A NO \_\_\_\_\_ METER INSTALLED \_\_\_\_\_ DATE \_\_\_\_\_ READING \_\_\_\_\_  
 DATE \_\_\_\_\_ EHS SPECIALIST Steve Bond  
 DATE \_\_\_\_\_ Steve Bond  
 SITE INSPECTION \_\_\_\_\_  
 APPLICATION APPROVAL \_\_\_\_\_  
 PAD INSPECTION \_\_\_\_\_  
 RECEIPT OF WELL LOG \_\_\_\_\_  
 FINAL \_\_\_\_\_

### **ANNULAR WELL SEAL WITNESSED:**

☒ YES DATE 12/22/03  
☐ NO DEPTH 20.5'  
 SEAL MATERIAL Cement  
 # SACKS CEMENT/YARD 9 sacks

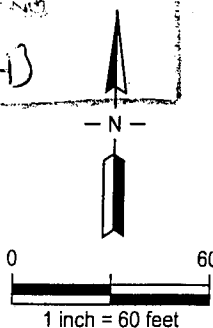
COMMENTS: Regional Board Approved Workplan, 12/1/03.



# EXPLANATION

- ⊙ MONITORING WELL
- \*\*⊙ MONITORING WELL (ARCO)
- \*⊙ MONITORING WELL (UNOCAL)
- ⊕ EXTRACTION WELL
- ⊘ ABANDONED WELL
- ⊗ MONITORING WELL TO BE ABANDONED
- ⊗ MW-3 TO BE REPLACED

Santa Cruz County  
ENV. HEALTH SERVICE  
APPROVED BY: *[Signature]*  
DATE: 12/11/03  
PERMIT NO: 03-243



## SITE MAP

**Chevron Station 9-0499**

404 Soquel Avenue, Santa Cruz, California

Drawn	CTO	Checked	Approved	Figure
Date	11/14/03	Date	Date	1
Job no.	00-0000-00-0000-000	File no.		

**SAIC** Science Applications  
International Corporation  
An Employee-Owned Company

**ATTACHMENT B**  
**BORING LOG**

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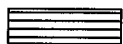


# WELL/BORING LOG KEY TO ABBREVIATIONS

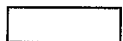
## WELL/BORING COMPLETION



Annular seal; cement grout



Slotted well screen section



Solid well section



Bentonite seal



Annular sand pack

## MOISTURE

D Dry

DP Damp

M Moist

W Wet (Sands and Gravels)

S Saturated (Silts and Clays)

## GROUNDWATER



Stabilized Groundwater Level



First Encountered Groundwater

## DENSITY (blows/foot - Cal Mod Sampler)

-Sands and Gravels-

0-5 -Very loose

5-13 -loose

13-38 -Medium dense

38-63 -Dense

OVER 63 -Very dense

-Silts and Clays-

0-2 -Very soft

2-4 -Soft

4-9 -Firm

9-17 -Stiff

17-37 -Very stiff

37-72 -Hard

OVER 72 -Very hard

## FIELD TEST

PID Photo-ionization detector

FID Flame-ionization detector

## SOIL SAMPLE NUMBER

B-1-5 B-Sample #-Depth in feet (for borings)

MW-1-5 MW-Sample #- Depth in feet (for Wells)

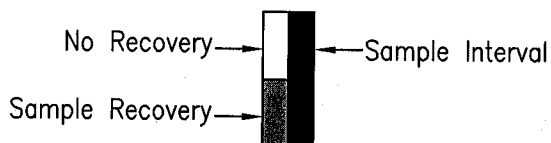
## RECOVERY / SAMPLE INTERVAL

SAMPLE INTERVAL - Attempted sample interval

RECOVERY - Sample retained within sample interval

NO RECOVERY - Sample not retained within sample interval

## GRAPHIC



## EXPLANATION AND ABBREVIATIONS

USCS SYMBOL = Unified Soil Classification System
















MSL = Mean Sea Level

2.5YR 6/2 = Munsel Color Chart Designation



# UNIFIED SOIL CLASSIFICATION SYSTEM

## ASTM D2487

MAJOR DIVISIONS			SYMBOL/ GRAPHIC		DESCRIPTION
COURSE GRAINED SOILS (>50% by weight larger than #200 sieve)	GRAVELS  (More than 50% of coarse fraction is larger than the #4 sieve size)	Clean gravels with little or no fines	GW		Well graded gravels, gravel-sand mixtures
			GP		Poorly graded gravels, gravel-sand mixtures
		Gravels with over 12% fines	GM		Silty gravels, poorly graded gravel-sand-silt mixtures
			GC		Clayey gravels, poorly graded gravel-sand-clay mixtures
	SANDS  (More than 50% of coarse fraction is smaller than the #4 sieve size)	Clean sands with little or no fines	SW		Well graded sands, gravelly sands
			SP		Poorly graded sands, gravelly sands
		Sands with over 12% fines	SM		Silty sands, poorly graded sand-silt mixtures
			SC		Clayey sands, poorly graded sand-clay mixtures
FINE GRAINED SOILS (>50% smaller than #200 sieve)	SILTS AND CLAYS (liquid limit less than 50%)	ML		Inorganic silts and very fine sands, silty or clayey fine sands	
		CL		Inorganic clays of low to medium plasticity: gravelly, sandy or silty clays; lean clays	
		OL		Organic clays and organic silty clays of low plasticity	
	SILTS AND CLAYS (liquid limit greater than 50%)	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
		CH		Inorganic clays of high plasticity, fat clays	
		OH		Organic clays of medium to high plasticity, organic silts	
	HIGHLY ORGANIC SOILS		Pt		Peat and other highly organic soils

### GRAIN-SIZE SCALE

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
	200	40	10	4	3/4"	3"	12"
SILTS AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COURSE	FINE	COURSE		

PROJECT: CVX 9-0499  
Santa Cruz, California

## Log of Boring No. MW-3A

BORING LOCATION: 404 Soquel Avenue, Santa Cruz, California

ELEVATION AND DATUM:

NA

DRILLING CONTRACTOR: Gregg Drilling

DATE STARTED:/TIME:  
4/29/04 9:02

DATE COMPLETED:/TIME:  
4/29/04 11:35

DRILLER: Jason Neff

TOTAL DEPTH (ft.):  
20'

MEASURING POINT:  
Ground Surface

DRILLING METHOD: Hollow Stem Auger -10"

DEPTH TO WATER (ft.):

11'

7.7'

TIME:

10:05

11:29

DRILLING EQUIPMENT: CME-80

GEOLOGIST: Kim Burckle

SAMPLING METHOD: Split Spoon

REVIEWED BY: Joe Muzzio

Well Construction Detail	OVM (ppm)	SAMPLES		DEPTH (feet)	GRAPHIC	CLASS	DESCRIPTION
		Blows/ Foot	Sample Id.				NAME (USCS): color, moist, % by wt., plast. and density.
							Surface Elevation: NA
Cement				1			Boring hand augered to 5' bgs.
				2			Native material observed to be silt during borehole clearance.
Bentonite				3			
				4			
	1.3	10	MW-3A-6 9:11	5		ML	SILT (ML) ; dark gray (GY 5/5); damp; low to medium plasticity; stiff; redox features, iron, rootholes; mica flakes; very fine sand, clay; no odor.
	1.4	11		6			
				7		SW	WELL GRADED SAND (SW) ; yellowish brown (10YR 5/6); wet; medium dense; very fine to coarse grained sand; no odor; trace clay.
				8			
	1.5	11	MW-3A-9 9:39	9			
		13		10			
		18		11			
				12			POORLY GRADED SAND (SP) ; yellowish brown (10YR 5/5); wet; dense; very coarse sand (1-2 mm); trace subrounded 1/2" gravel; no odor.
	1.2	14	MW-3A-15 9:46	13		SP	
	1.1	30		14			
		16		15			
				16			SANDSTONE/SILTSTONE (C) ; tannish brown; damp; very dense; very fine to fine sand, silt.
				17			
				18			
				19		C	
		36	MW-3A-19 9:55	20			Boring terminated @ 20' bgs.
	50/6						

NOTES: Well constructed with 4-inch diameter schedule 40 PVC, 0.02" factory slotted screen.  
Sand pack of #3 grade sand.

**ATTACHMENT C**

**MORROW SURVEYING WELL SURVEY DATA**

---

# Monitoring Well Exhibit

Prepared For:

## SAIC Applications

DESCRIPTION	NORTHING	EASTING	ELEV (PVC)	ELEV (BOX)
MW-3A	1816703.5	6118080.0	32.70	33.34
MW-7	1816861.8	6117902.9	28.88	29.12
MW-8	1816747.1	6117936.5	31.00	31.60
MW-9	1816642.7	6117999.8	31.44	32.11
MW-10	1816826.3	6118114.3	34.29	34.68
E-1	1816736.4	6118046.3	32.67	33.67
E-2	1816792.7	6118044.2	32.60	32.97

DESCRIPTION	LATITUDE	LONGITUDE
MW-3A	36.9742680	-122.0184878
E-1	36.9743569	-122.0186050
E-2	36.9745113	-122.0186152
MW-7	36.9746947	-122.0191027
MW-8	36.9743813	-122.0189811
MW-9	36.9740976	-122.0187589
MW-10	36.9746068	-122.0183772

### BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

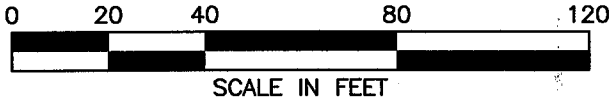
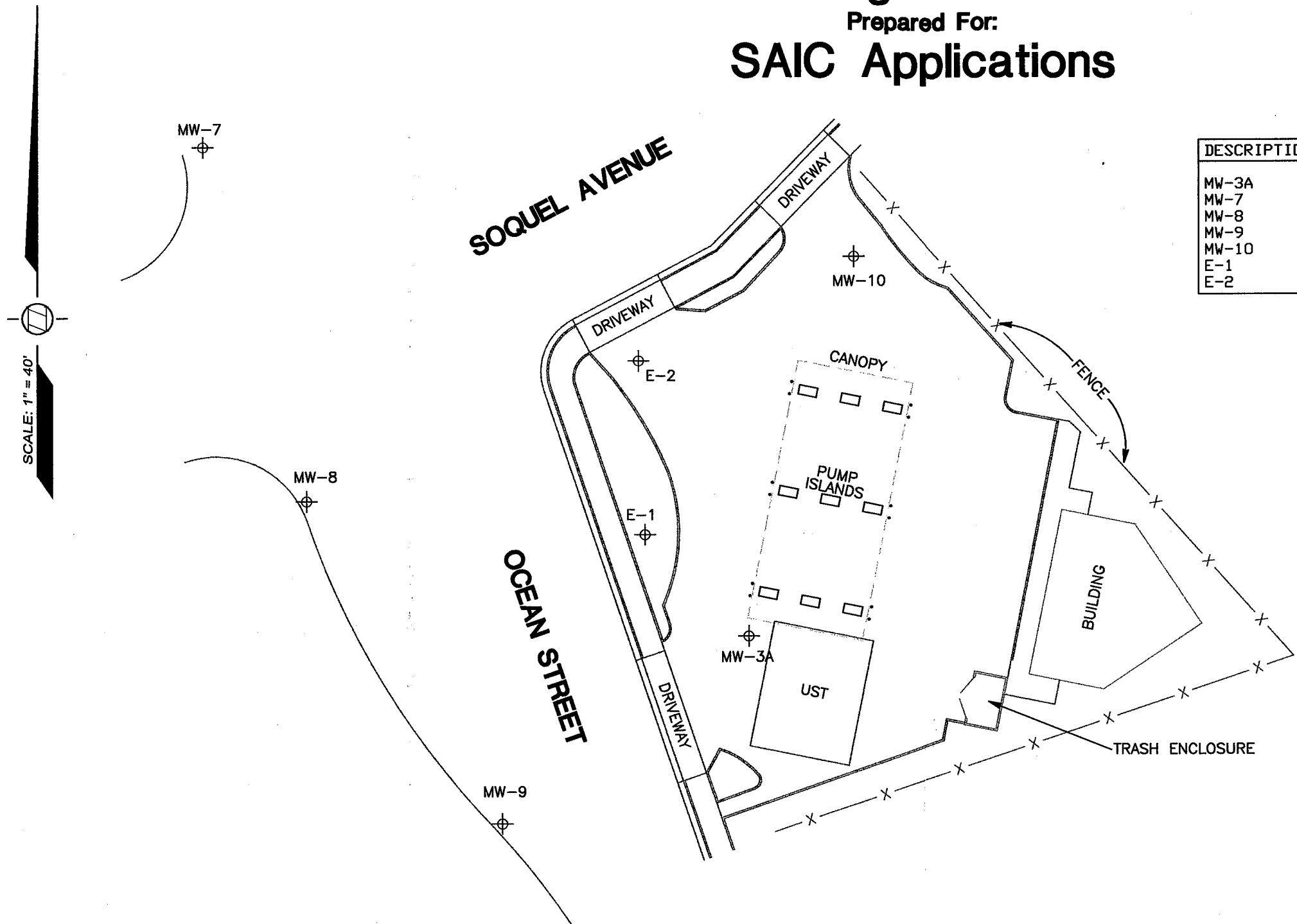
COORDINATE DATUM IS NAD 83(1986).

DATUM ELLIPSOID IS GRS80.

REFERENCE GEOID IS NGS99.

CORS STATIONS USED WERE PPT1 AND SODB.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.



Chevron Station NO. 9-0499  
404 Soquel Avenue  
Santa Cruz  
Santa Cruz County  
California



**Morrow**  
**Surveying**  
LAND SURVEYORS

1450 Harbor Blvd. Ste. D  
West Sacramento  
California 95691  
(916) 372-8124  
jeff@morrrowsurveying.com

Date: 7-8-04  
Scale: 1" = 40'  
Sheet 1 of 1  
Revised:  
Field Book: MW-15  
Dwg. No. 7167-012 JL



**ATTACHMENT D**  
**GETTLER-RYAN INC. SEMI-ANNUAL MONITORING AND SAMPLING REPORT**



# GETTLER-RYAN Inc.

## TRANSMITTAL

July 29, 2004

G-R #386833

TO: Mr. Mark Lafferty  
ChevronTexaco Company  
P.O. Box 6012, Room K2208  
San Ramon, California 94583

CC: Mr. Joe Muzzio  
SAIC  
401 Alberto Way, Suite B  
Los Gatos, California 95032

FROM: Deanna L. Harding  
Project Coordinator  
Gettler-Ryan Inc.  
6747 Sierra Court, Suite J  
Dublin, California 94568

RE: **Chevron Service Station**  
**#9-0499**  
**404 Soquel Avenue**  
**Santa Cruz, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	July 28, 2004	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of July 8, 2004

### COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to, **August 24, 2004**, at which time the final report will be distributed to the following:

cc: Mr. Tom Sayles, RWQCB-CCR, 895 Aerovista Place, Suite 101, San Luis Obispo, CA 93401

Enclosures

trans/9-0499.ml



# GETTLER-RYAN INC.

July 28, 2004  
G-R Job #386833

Mr. Mark Lafferty  
ChevronTexaco Company  
P.O. Box 6012, Room K2208  
San Ramon, CA 94583

**RE: Second Semi-Annual Event of July 8, 2004**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

Dear Mr. Lafferty:

This report documents the well development and the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached). A joint groundwater monitoring and sampling event was not conducted with Arco #2132, located at 411 Soquel Avenue, Santa Cruz, California.

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

*Deanna L. Harding*

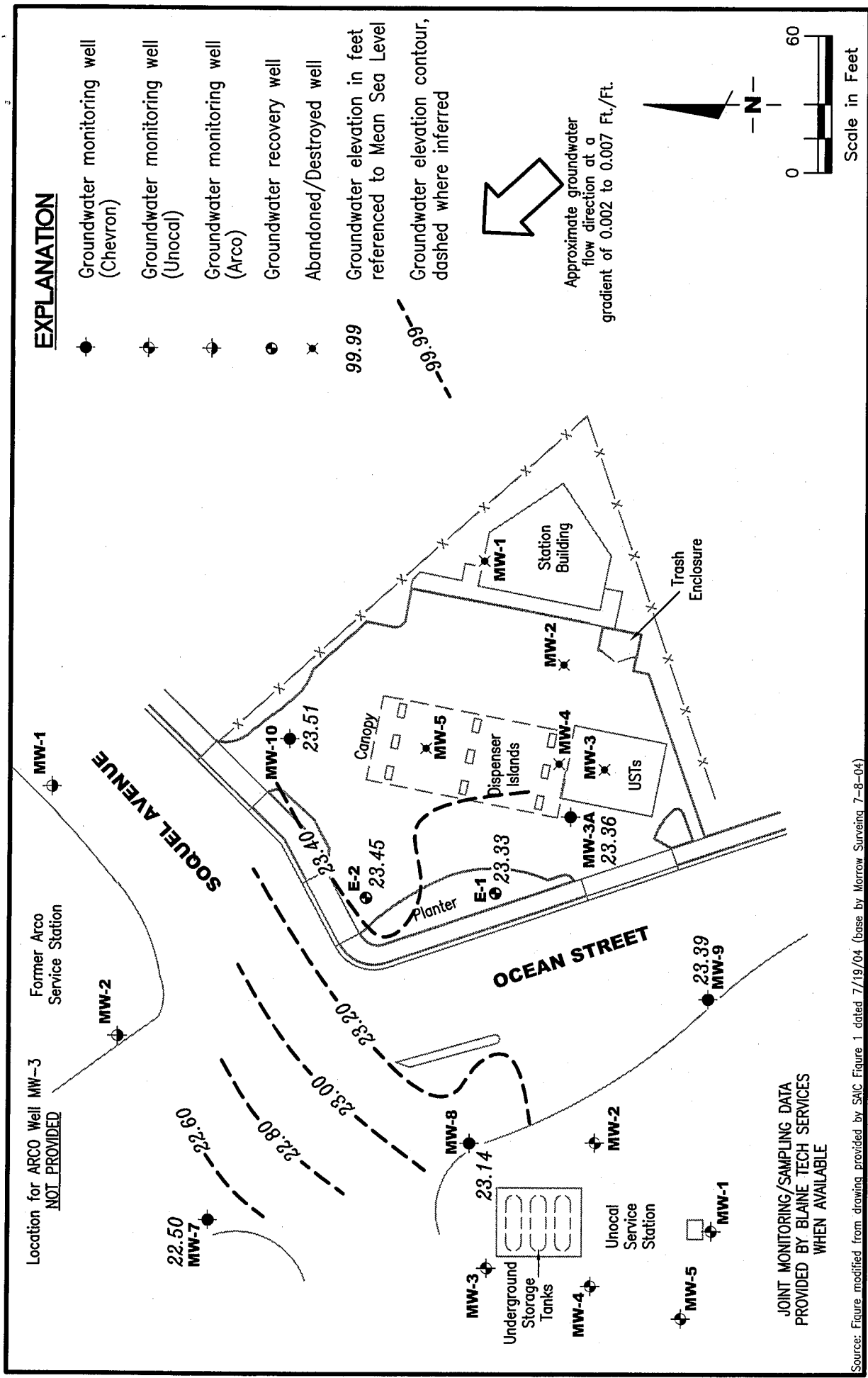
Deanna L. Harding  
Project Coordinator

*Hagop Kevork*

Hagop Kevork  
P.E. No. C55734



- Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Table 3: Joint Groundwater Monitoring Data and Analytical Results - Arco  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msf)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-1</b>												
09/28/88	33.14	21.07	12.07	--	<50	--	<5.0	<5.0	<5.0	<5.0	--	<10
10/20/88	33.14	20.68	12.46	--	--	--	--	--	--	--	--	--
01/03/89	33.14	21.72	11.42	--	<50	--	<0.5	<0.5	<0.5	<1.0	--	<5.0
04/07/89	33.14	23.05	10.09	--	<50	<50	<0.5	<0.5	<0.5	<2.0	--	<5.0
04/19/89	33.14	22.60	10.54	--	--	--	--	--	--	--	--	--
07/24/89	33.14	21.15	11.99	--	<50	<50	<0.5	<0.5	<0.5	<1.0	--	<5.0
08/14/89	33.14	20.86	12.28	--	--	--	--	--	--	--	--	--
10/16/89	33.14	20.47	12.67	--	<500	<500	<0.3	<0.3	<0.3	<0.6	--	<1.0
01/30/90	33.14	20.50	12.64	--	<100	<50	<0.3	<0.3	<0.3	<0.6	--	<1.0
04/24/90	33.14	19.82	13.32	--	<100	<50	<0.3	<0.3	<0.3	<0.6	--	<1.0
07/31/90	33.14	20.37	12.77	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
10/16/90	33.14	19.88	13.26	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
01/08/91	33.14	19.64	13.50	--	--	<50	<0.5	2.0	<0.5	0.9	--	--
04/22/91	33.14	21.14	12.00	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
<b>ABANDONED</b>												
<b>MW-2</b>												
09/28/88	32.09	21.71	10.38	--	--	650	130	41	3.0	14	--	--
10/20/88	32.09	21.33	10.76	--	--	--	--	--	--	--	--	--
01/03/89	32.09	22.34	9.75	--	--	1,500	620	10	<0.5	30	--	--
04/07/89	32.09	23.70	8.39	--	--	1,100	440	3.0	6.0	35	--	--
04/19/89	32.09	23.23	8.86	--	--	--	--	--	--	--	--	--
07/24/89	32.09	21.79	10.30	--	--	320	56	<0.5	<0.5	<1.0	--	--
08/14/89	32.09	21.53	10.56	--	--	--	--	--	--	--	--	--
10/16/89	32.09	21.12	10.97	--	--	520	120	2.0	7.0	5.0	--	--
01/30/90	32.09	21.14	10.95	--	--	<50	11	<0.3	<0.3	<0.6	--	--
04/24/90	32.09	21.47	10.62	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
07/31/90	32.09	21.03	11.06	--	--	99	8	<0.3	2.0	1.0	--	--
10/17/90	32.09	20.53	11.56	--	--	110	15	<0.3	1.0	1.0	--	--
01/08/91	32.09	20.26	11.83	--	--	82	24	2.0	0.6	2.0	--	--
04/23/91	32.09	21.79	10.30	--	--	190	21	<0.5	<0.5	<0.5	--	--
<b>ABANDONED</b>												

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-3</b>												
09/28/88	30.89	21.31	9.58	--	--	1,500	360	1.0	<0.5	7.0	--	--
10/20/88	30.89	20.95	9.94	--	--	--	--	--	--	--	--	--
01/03/89	30.89	21.88	9.01	--	--	470	66	4.2	1.0	7.0	--	--
04/07/89	30.89	22.37	8.52	--	--	8,000	4,400	190	87	460	--	--
04/19/89	30.89	23.05	7.84	--	--	--	--	--	--	--	--	--
07/24/89	30.89	21.40	9.49	--	--	1,300	230	66	4.0	110	--	--
08/14/89	30.89	21.14	9.75	--	--	--	--	--	--	--	--	--
10/16/89	30.89	20.74	10.15	--	--	<500	58	1.0	8.0	1.0	--	--
01/30/90	30.89	20.76	10.13	--	--	270	35	<0.3	1.0	<0.6	--	--
04/25/90	30.89	21.07	9.82	--	--	<50	5.0	<0.3	<0.3	<0.6	--	--
07/31/90	30.89	20.64	10.25	--	--	68	9.0	<0.3	<0.3	<0.6	--	--
10/17/90	30.89	20.16	10.73	--	--	73	12	<0.3	<0.3	<0.6	--	--
01/08/91	30.89	19.89	11.00	--	--	110	18	<0.5	<0.5	<0.5	--	--
04/23/91	30.89	23.38	7.51	--	--	93	13	<0.5	<0.5	<0.5	--	--
08/06/91	30.89	20.49	10.40	--	--	89	2.7	<0.5	1.3	20	--	--
09/04/91	30.89	19.65	11.24	--	<50	110	<0.5	<0.5	1.1	11	--	--
10/07/91	30.97	19.46	11.51	--	--	--	--	--	--	--	--	--
12/30/91	30.97	19.43	11.54	--	<50	51	<0.5	<0.5	<0.5	<0.5	--	--
03/19/92	30.97	21.60	9.37	--	<50	69	20.0	<0.5	3.0	1.9	--	--
06/11/92	30.97	20.67	10.30	--	--	<50	0.6	<0.5	<0.5	<0.5	--	--
09/15/92	30.97	20.05	10.92	--	--	67	<0.5	<0.5	<0.5	<0.5	--	--
12/22/92	30.97	19.85	11.12	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/22/93	30.97	22.58	8.39	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/21/93	30.97	21.36	9.61	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/03/93 <sup>4</sup>	30.97	20.52	10.45	--	--	--	--	--	--	--	--	--
09/24/93	30.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/93	30.97	20.16	10.81	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	30.97	21.23	9.74	--	--	<50	<0.5	5.5	<0.5	4.3	--	--
06/13/94	30.97	21.27	9.70	--	--	<200	<2.0	<2.0	<2.0	<2.0	--	--
09/29/94	30.97	20.21	10.76	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	30.97	20.27	10.70	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/20/95	30.97	22.37	8.60	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/19/95	30.97	21.01	9.96	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-3 (cont)</b>												
09/12/95	30.97	20.77	10.20	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/13/95	30.97	20.37	10.60	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/12/96	30.97	21.74	9.23	--	SAMPLED ANNUALLY		--	--	--	--	--	--
12/19/96	30.97	21.77	9.20	--	--	<500	<5.0	<5.0	<5.0	<5.0	--	--
06/16/97	30.97	20.72	10.25	--	--	--	--	--	--	--	--	--
12/05/97	30.97	20.69	10.28	--	--	<50	<0.5	<0.5	<0.5	<0.5	140	--
05/28/98	30.97	23.72	7.25	--	SAMPLED ANNUALLY		--	--	--	--	--	--
08/11/98	30.97	21.48	9.49	--	--	<50	<0.5	<0.5	<0.5	<0.5	140	--
02/03/99	30.97	22.46	8.51	--	--	--	--	--	--	--	--	--
08/02/99	30.97	22.72	8.25	--	--	<50	<0.5	<0.5	<0.5	<0.5	27.7	--
02/16/00	30.97	24.14	6.83	--	--	--	--	--	--	--	--	--
08/16/00	30.97	21.62	9.35	0.00	--	<50.0	<0.500	<0.500	<0.500	<0.500	35.2	--
02/23/01	30.97	22.77	8.20	0.00	--	--	--	--	--	--	--	--
08/02/01	30.97	21.48	9.49	0.00	--	<50	<0.50	0.69	<0.50	<0.50	11/15 <sup>7</sup>	--
02/13/02	30.97	22.94	8.03	0.00	SAMPLED ANNUALLY		--	--	--	--	--	--
08/02/02	30.97	21.43	9.54	0.00	--	<50	<0.50	<0.50	<0.50	<1.5	760/750 <sup>7</sup>	--
02/03/03	30.97	22.57	8.40	0.00	SAMPLED ANNUALLY		--	--	--	--	--	--
08/01/03	30.97	21.57	9.40	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	93/81 <sup>7</sup>	--
<b>DESTROYED - DECEMBER 2003</b>												
<b>MW-3A</b>												
07/08/04 <sup>8</sup>	32.70	23.36	9.34	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	47/45 <sup>7</sup>	--
<b>MW-4</b>												
09/28/88	31.74	21.22	10.52	0.40	--	260,000	16,000	15,000	8,000	22,000	--	--
10/20/88	31.74	20.52	11.22	--	--	--	--	--	--	--	--	--
01/03/89	31.74	22.01	9.73	0.80	--	--	--	--	--	--	--	--
04/07/89	31.74	23.15	8.59	0.06	--	1,400,000	18,000	47,000	68,000	56,000	--	--
04/19/89	31.74	22.71	9.03	--	--	--	--	--	--	--	--	--
07/24/89	31.74	21.12	10.62	0.15	--	280,000	15,000	19,000	3,800	26,000	--	--
08/14/89	31.74	20.92	10.82	--	--	--	--	--	--	--	--	--

**Table 1**  
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Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-4 (cont)</b>												
10/16/89	31.74	20.47	11.27	0.17	--	450,000	10,000	30,000	11,000	69,000	--	--
01/30/90	31.74	20.59	11.15	0.01	--	84,000	7,400	18,000	3,000	18,000	--	--
04/25/90	31.74	21.98	9.76	0.01	--	78,000	5,700	8,200	2,300	14,000	--	--
07/31/90	31.74	20.51	11.23	0.05	--	--	--	--	--	--	--	--
10/16/93	31.74	20.02	11.72	0.03	--	--	--	--	--	--	--	--
01/08/91	31.74	19.81	11.93	0.02	--	--	--	--	--	--	--	--
04/23/91	31.74	20.97	10.77	Sheen	--	--	--	--	--	--	--	--
ABANDONED												
<b>MW-5</b>												
09/28/88	31.91	21.01	9.90	--	--	610	69	12	4.0	14	--	--
10/20/88	31.91	21.68	10.23	--	--	--	--	--	--	--	--	--
01/03/89	31.91	22.85	9.06	--	--	2,000	490	40	80	20	--	--
04/07/89	31.91	23.96	7.95	--	--	1,900	470	18	35	23	--	--
04/19/89	31.91	23.59	8.32	--	--	--	--	--	--	--	--	--
07/24/89	31.91	22.16	9.75	--	--	580	73	<0.5	<0.5	<1.0	--	--
08/14/89	31.91	21.85	10.06	--	--	--	--	--	--	--	--	--
10/16/89	31.91	21.44	10.44	--	--	<500	1.0	<0.3	<0.3	<0.6	--	--
01/30/90	31.91	21.52	10.39	--	--	80	3.0	<0.3	<0.3	<0.6	--	--
04/24/90	31.91	21.83	10.08	--	--	130	0.4	<0.3	<0.3	<0.6	--	--
07/31/90	31.91	21.37	10.54	--	--	210	2.0	<0.3	<0.3	<0.6	--	--
10/17/90	31.91	20.85	11.06	--	--	150	0.8	<0.3	<0.3	<0.6	--	--
01/09/91	31.91	20.61	11.30	--	--	<50	<0.5	<0.3	<0.3	<0.6	--	--
04/23/91	31.91	22.11	9.80	--	--	99	<0.5	<0.5	<0.5	<0.5	--	--
07/01/91 <sup>1</sup>	31.93	--	--	--	--	--	--	--	--	--	--	--
08/06/91	31.91	21.19	10.72	--	--	59	0.5	<0.5	<0.5	<0.5	--	--
09/04/91	31.91	19.89	12.02	--	<50	120	<0.5	<0.5	<0.5	<0.5	--	--
10/07/91	31.95	19.64	12.31	--	--	--	--	--	--	--	--	--
12/30/91	31.95	19.74	12.21	--	<50	160	<0.5	<0.5	<0.5	<0.5	--	--
03/19/92	31.95	21.86	10.09	--	<50	97	<0.5	<0.5	<0.5	<0.5	--	--
06/11/92	31.95	20.91	11.04	--	--	71	1.6	<0.5	0.7	1.6	--	--
09/15/92	31.95	20.18	11.77	--	--	110	<0.5	<0.5	<0.5	<0.5	--	--



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Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOC (ppb)
<b>MW-5 (cont)</b>												
12/22/92	31.95	20.78	11.17	--	--	97	<0.5	<0.5	<0.5	<0.5	--	--
03/22/93	31.95	22.69	9.26	--	--	90	<0.5	<0.5	<0.5	<0.5	--	--
06/21/93	31.95	21.41	10.54	--	--	<50	<0.5	<0.5	0.7	3.0	--	--
09/03/93 <sup>4</sup>	31.95	20.54	11.41	--	--	--	--	--	--	--	--	--
09/24/93	31.95	--	--	--	--	120	2.0	3.0	0.7	4.0	--	--
12/15/93	31.95	20.23	11.72	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	31.95	21.45	10.50	--	--	<50	<0.5	8.7	<0.5	<0.5	--	--
06/13/94	31.95	21.76	10.19	--	--	<50	<0.5	2.2	<0.5	<0.5	--	--
09/29/94	31.95	20.01	11.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	31.95	20.53	11.42	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/20/95	31.95	23.15	8.80	--	--	<50	0.90	1.5	<0.5	0.71	--	--
06/19/95	31.95	22.35	9.60	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/12/95	31.95	21.20	10.75	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/13/95	31.95	20.37	11.58	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/12/96	31.95	21.94	10.01	--	SAMPLED ANNUALLY	--	--	--	--	--	--	--
12/19/96	31.95	21.96	9.99	--	--	<50	<0.5	1.6	<0.5	<0.5	--	--
06/16/97	31.95	20.79	11.16	--	--	--	--	--	--	--	--	--
12/05/97	31.95	21.07	10.88	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/28/98	31.95	23.10	8.85	--	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/11/98	31.95	21.49	10.46	--	--	120	<1.0	13	<1.0	<1.0	5.3	--
02/03/99	31.95	22.37	9.58	--	--	--	--	--	--	--	--	--
08/02/99	31.95	22.24	9.71	--	--	615	<0.5	3.68	<0.5	<0.5	<5.0	--
02/16/00	31.95	24.82	7.13	--	--	--	--	--	--	--	--	--
08/16/00	31.95	22.29	9.66	0.00	--	58.3 <sup>6</sup>	<0.500	13.7	<0.500	<0.500	<5.00	--
02/23/01	31.95	23.97	7.98	0.00	--	--	--	--	--	--	--	--
08/02/01	31.95	22.15	9.80	0.00	--	99	<0.50	49	<0.50	0.83	<2.5	--
02/13/02	31.95	23.66	8.29	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/02/02	31.95	22.11	9.84	0.00	--	<250	<1.0	15	<1.0	<3.0	<2.5	--
02/03/03	31.95	23.38	8.57	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/01/03	31.95	22.40	9.55	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
DESTROYED - DECEMBER 2003												

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Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msd)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-6</b>												
09/28/88	30.72	21.32	9.40	--	--	<50	4.0	<0.5	<0.5	<1.0	--	--
10/20/88	30.72	20.94	9.78	--	--	--	--	--	--	--	--	--
01/03/89	30.72	22.12	8.60	--	--	440	8.7	1.2	0.6	<1.0	--	--
04/07/89	30.72	21.40	9.32	--	--	660	41	2.8	1.9	5.0	--	--
07/24/89	30.72	23.20	7.51	--	--	80	3.6	<0.5	<0.5	1.0	--	--
08/14/89	30.72	21.11	9.61	--	--	--	--	--	--	--	--	--
10/16/89	30.72	20.74	9.98	--	--	750	18	<0.3	1.0	1.0	--	--
01/30/90	30.72	20.77	9.95	--	--	1,200	66	5.0	2.0	7.0	--	--
04/25/90	30.72	21.10	9.62	--	--	1,400	480	6.0	<0.3	31.0	--	--
07/31/90	30.72	20.65	10.07	--	--	1,500	51	<0.3	1.0	2.0	--	--
10/17/90	30.72	20.14	10.58	--	--	1,400	31	2.0	2.0	4.0	--	--
01/09/91	30.72	19.87	10.85	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/23/91	30.72	21.39	9.33	--	--	630	10	4.0	2.0	6.0	--	--
ABANDONED - REPLACED BY WELL E-2												
<b>MW-7</b>												
07/24/89	26.67	19.57	7.10	--	--	<50	<0.5	<0.5	<0.5	<1.0	--	--
08/14/89	26.67	19.33	7.34	--	--	<500	<0.3	<0.3	<0.3	<0.6	--	--
10/16/89	26.67	19.14	7.53	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
01/30/90	26.67	19.08	7.59	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
04/24/90	26.67	19.21	7.46	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
07/31/90	26.67	18.90	7.77	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
10/16/90	26.67	18.69	7.98	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
01/08/91	26.67	18.67	8.00	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
04/22/91	26.67	19.47	7.20	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/06/91	26.67	18.79	7.88	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/04/91	26.67	18.43	8.24	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/07/91	26.57	18.24	8.33	--	--	--	--	--	--	--	--	--
12/30/91	26.57	17.76	8.81	--	<50	51	<0.5	<0.5	<0.5	<0.5	--	--
03/19/92	26.57	19.27	7.30	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/11/92	26.57	18.74	7.83	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/15/92	26.57	18.57	8.00	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--

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<b>MW-7 (cont)</b>												
12/22/92	26.57	18.63	7.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/22/93	26.57	18.86	7.71	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/21/93	26.57	19.44	7.13	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/03/93	26.57	18.79	7.78	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/93	26.57	18.77	7.80	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	26.57	19.39	7.18	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/13/94	26.57	19.43	7.14	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/29/94	26.57	19.35	7.22	--	--	310	11	<1.0	1.6	1.3	--	--
12/07/94	26.57	19.39	7.18	--	--	<50	<0.5	<0.5	<0.5	0.55	--	--
03/20/95	26.57	21.03	5.54	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/19/95	26.57	19.83	6.74	--	--	<50	2.1	<0.5	<0.5	<0.5	--	--
09/12/95	26.57	19.37	7.20	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/13/95	26.57	19.20	7.37	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/12/96	26.57	20.24	6.33	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/19/96	26.57	20.25	6.32	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/16/97	26.57	18.87	7.70	--	--	<50	2.2	0.97	0.51	1.5	31	--
12/05/97	26.57	19.05	7.52	--	--	<50	<0.5	<0.5	<0.5	<0.5	26	--
05/28/98	26.57	20.40	6.17	--	--	120	<0.3	<0.3	<0.3	<0.6	17	--
08/11/98	26.57	18.96	7.61	--	--	<50	<0.5	<0.5	<0.5	<0.5	25	--
02/03/99	26.57	18.54	8.03	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
08/02/99	26.57	18.56	8.01	--	--	<50	<0.5	<0.5	<0.5	<0.5	29	--
02/16/00	26.57	22.06	4.51	--	--	<50	<0.5	<0.5	<0.5	<0.5	<3.19	--
08/16/00	26.57	INACCESSIBLE - DUE TO TRAFFIC CONTROL										--
02/23/01	26.57	21.46	5.11	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	12	--
08/02/01	26.57	19.39	7.18	0.00	--	<50	<0.50	1.6	<0.50	0.87	17/18 <sup>7</sup>	--
02/13/02	26.57	19.20	7.37	0.00	--	<50	<0.50	<0.50	<0.50	<1.5	4.2/4 <sup>7</sup>	--
08/02/02	26.57	19.81	6.76	0.00	--	<50	<0.50	<0.50	<0.50	<1.5	6.4/7 <sup>7</sup>	--
02/03/03	26.57	21.09	5.48	0.00	--	<50	<0.50	0.50	3.8	<1.5	<2.5/<2 <sup>7</sup>	--
08/01/03	26.57	19.90	6.67	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	2.8/2 <sup>7</sup>	--
02/05/04	26.57	21.49	5.08	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5/2 <sup>7</sup>	--
07/08/04	28.88	22.50	6.38	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	2.6/<2 <sup>7</sup>	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL-ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-8</b>												
07/24/89	29.12	21.23	7.89	--	--	860	<2.0	8.0	3.0	10	--	--
08/14/89	29.12	20.97	8.15	--	--	--	--	--	--	--	--	--
10/16/89	29.12	20.65	8.47	--	--	<500	0.4	<0.3	<0.3	1.0	--	--
01/30/90	29.12	20.64	8.48	--	--	130	1.0	<0.3	<0.3	1.0	--	--
04/24/90	29.12	20.92	8.20	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
07/31/90	29.12	20.54	8.58	--	--	82	<0.4	<0.3	0.4	0.6	--	--
10/16/90	29.12	20.09	9.03	--	--	1,300	9.0	2.0	4.0	6.0	--	--
01/08/91	29.12	19.82	9.30	--	--	420	0.9	1.0	0.9	4.0	--	--
04/22/91	29.12	21.19	7.93	Sheen	--	--	--	--	--	--	--	--
08/06/91	29.12	20.36	8.76	--	--	280	0.9	0.9	1.0	2.1	--	--
09/04/91	29.12	19.80	9.32	--	<50	150	<0.5	0.9	<0.5	2.2	--	--
10/07/91	29.01	19.42	9.59	--	--	--	--	--	--	--	--	--
12/30/91	29.01	19.29	9.72	--	390	330	<0.5	<0.5	0.6	2.6	--	--
03/19/92	29.01	21.02	7.99	--	66	66	<0.5	<0.5	<0.5	1.2	--	--
06/11/92	29.01	20.50	8.51	--	--	69	0.8	2.0	1.0	6.9	--	--
09/15/92	29.01	20.03	8.98	--	--	<50	<0.5	<0.5	<0.5	0.8	--	--
12/22/92	29.01	19.74	9.27	--	--	89	<0.5	<0.5	<0.5	1.0	--	--
03/22/93	29.01	21.70	7.31	--	--	460	<0.5	0.9	1.0	3.0	--	--
06/21/93	29.01	20.97	8.04	--	--	410	<0.5	2.0	0.9	10	--	--
09/03/93 <sup>4</sup>	29.01	20.34	8.67	--	--	--	--	--	--	--	--	--
09/24/93	29.01	--	--	--	--	830	<0.5	1.0	1.0	17	--	--
12/15/93	29.01	20.00	9.01	--	--	230	<0.5	0.55	<0.5	<0.5	--	--
03/16/94	29.01	20.21	8.80	--	--	74	<0.5	<0.5	<0.5	<0.5	--	--
06/13/94	29.01	20.99	8.02	--	--	82	<0.5	<0.5	<0.5	<0.5	--	--
09/29/94	29.01	20.01	9.00	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	29.01	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
03/20/95	29.01	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
06/19/95	29.01	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
09/12/95	29.01	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
12/13/95	29.01	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
06/12/96	29.01	21.21	7.80	--	--	67	<0.5	<0.5	<0.5	<0.5	--	--
12/19/96	29.01	21.33	7.68	--	--	1,100	<1.0	<1.0	4.8	9.9	--	--
06/16/97	29.01	20.45	8.56	--	--	250	<0.5	0.77	1.3	2.0	5.9	--

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Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-8 (cont)</b>												
12/05/97	29.01	20.47	8.54	--	--	260	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/28/98	29.01	21.90	7.11	--	--	290	<0.3	<0.3	<0.3	<0.6	<10	--
08/11/98	29.01	20.87	8.14	--	--	120	<0.5	<0.5	2.2	<0.5	5.7	--
02/03/99	29.01	19.94	9.07	--	--	69	<0.5	<0.5	<0.5	<0.5	3.4	--
08/02/99	29.01	19.82	9.19	--	--	835	<2.5	<2.5	<2.5	<2.5	<2.5	--
02/16/00	29.01	23.04	5.97	--	--	655	<1.0	<1.0	1.5	<1.0	8.6	--
08/16/00	29.01	21.16	7.85	0.00	--	140 <sup>6</sup>	0.622	0.550	<0.500	<0.500	<5.00	--
02/23/01	29.01	22.16	6.85	0.00	--	110 <sup>6</sup>	<0.50	<0.50	<0.50	<0.50	<2.5	--
08/02/01	29.01	21.02	7.99	0.00	--	660	<0.50	1.4	2.1	0.89	<2.5	--
02/13/02	29.01	22.20	6.81	0.00	--	140	<0.50	<0.50	<0.50	<1.5	2.6	--
08/02/02	29.01	21.06	7.95	0.00	--	160	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/03/03	29.01	22.06	6.95	0.00	--	280	<0.50	<0.50	<0.50	<1.5	<2.5	--
08/01/03	29.01	21.13	7.88	0.00	--	160	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/05/04	29.01	21.67	7.34	0.00	--	540	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/08/04	31.00	23.14	7.86	0.00	--	110	<0.5	<0.5	<0.5	<1.5	<2.5	--
<b>MW-9</b>												
07/24/89	29.50	21.75	7.75	--	--	<50	6.9	<0.5	1.7	<1.0	--	--
08/14/89	29.50	21.16	8.34	--	--	<50	1.0	<0.3	<0.3	<0.6	--	--
10/16/89	29.50	20.80	8.70	--	--	<500	<0.3	<0.3	<0.3	<0.6	--	--
01/30/90	29.50	20.79	8.71	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
04/24/90	29.50	21.10	8.40	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
07/31/90	29.50	20.68	8.82	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
10/16/90	29.50	20.22	9.28	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
01/08/91	29.50	20.00	9.50	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
04/22/91	29.50	21.22	8.28	--	--	<50	<0.5	<0.3	<0.3	<0.6	--	--
08/06/91	29.50	20.50	9.00	--	--	<50	0.7	<0.5	<0.5	<0.5	--	--
09/04/91	29.50	19.79	9.71	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/07/91	29.38	19.33	10.05	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/30/91	29.38	19.30	10.08	--	<50	--	--	--	--	--	--	--
03/19/92	29.38	21.29	8.09	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/11/92	29.38	20.54	8.84	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL-ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-9 (cont)</b>												
09/15/92	29.38	19.99	9.39	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/22/92	29.38	19.75	9.63	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/22/93	29.38	22.10	7.28	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/21/93	29.38	21.19	8.19	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/03/93 <sup>4</sup>	29.38	20.36	9.02	--	--	--	--	--	--	--	--	--
09/24/93	29.38	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/93	29.38	20.01	9.37	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	29.38	21.01	8.37	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/13/94	29.38	21.25	8.13	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/29/94	29.38	19.97	9.41	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	29.38	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
03/20/95	29.38	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
06/19/95	29.38	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
09/12/95	29.38	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
12/13/95	29.38	INACCESSIBLE	INACCESSIBLE	--	--	--	--	--	--	--	--	--
06/12/96	--	--	8.81	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/19/96	--	--	7.92	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/16/97	--	--	8.99	--	--	SAMPLED ANNUALLY	--	--	--	--	--	--
12/05/97	--	--	8.96	--	--	<50	<0.5	<0.5	<0.5	<0.5	22	--
05/28/98	--	--	7.29	--	--	SAMPLED ANNUALLY	--	--	--	--	--	--
08/11/98	--	--	7.95	--	--	<50	<0.5	<0.5	<0.5	<0.5	210	--
02/03/99	--	--	8.92	--	--	--	--	--	--	--	--	--
08/02/99	--	--	8.69	--	--	<50	0.593	<0.5	<0.5	<0.5	12.9	--
02/16/00	--	--	6.31	--	--	--	--	--	--	--	--	--
08/16/00	29.38	21.39	7.99	0.00	--	<50.0	<0.500	<0.500	<0.500	<0.500	65.0	--
02/23/01	29.38	22.37	7.01	0.00	--	--	--	--	--	--	--	--
08/02/01	29.38	21.26	8.12	0.00	--	<50	<0.50	0.85	<0.50	0.54	18/23 <sup>7</sup>	--
02/13/02	29.38	22.61	6.77	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/02/02	29.38	21.24	8.14	0.00	--	<50	<0.50	<0.50	<0.50	<1.5	7.5/9 <sup>7</sup>	--
02/03/03	29.38	22.28	7.10	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/01/03	29.38	21.32	8.06	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	15/13 <sup>7</sup>	--
02/05/04	29.38	22.41	6.97	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
07/08/04	31.44	23.39	8.05	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	6.3/4 <sup>7</sup>	--

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Chevron Service Station #9-0499  
404 Soquel Avenue  
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WELL-ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-10</b>												
07/24/89	32.32	21.39	10.93	--	--	<50	<0.5	<0.5	<0.5	1.0	--	--
08/14/89	32.32	21.11	11.21	--	--	--	--	--	--	--	--	--
10/16/89	32.32	20.73	11.59	--	--	<500	21	2.0	0.5	<0.6	--	--
01/30/90	32.32	20.76	11.56	--	--	55	1.0	<0.3	<0.3	<0.6	--	--
04/24/90	32.32	21.07	11.25	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	--
07/31/90	32.32	20.64	11.68	--	--	<50	<0.3	<0.3	<0.6	<0.6	--	--
10/16/90	32.32	20.14	12.18	--	--	79	0.5	<0.3	<0.3	<0.6	--	--
01/08/91	32.32	19.87	12.45	--	--	110	<0.5	<0.3	<0.5	<0.5	--	--
04/22/91	32.32	21.38	10.94	--	--	58	<0.5	<0.5	<0.5	<0.5	--	--
08/06/91	32.32	20.47	11.85	--	--	62	<0.5	<0.5	<0.5	1.2	--	--
09/04/91	32.32	21.08	11.24	--	<50	110	<0.5	<0.5	<0.5	<0.5	--	--
10/17/91	32.18	19.54	12.64	--	--	--	--	--	--	--	--	--
12/30/91	32.18	19.45	12.73	--	<50	56	0.7	<0.5	<0.5	0.6	--	--
03/19/92	32.18	21.64	10.54	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/11/92	32.18	20.72	11.46	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/15/92	32.18	20.04	12.14	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/22/92	32.18	19.89	12.29	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/22/93	32.18	22.66	9.52	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/21/93	32.18	21.40	10.78	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/03/93 <sup>4</sup>	32.18	20.53	11.65	--	--	--	--	--	--	--	--	--
09/24/93	32.18	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/93	32.18	20.22	11.96	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	32.18	21.29	10.89	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/13/94	32.18	21.29	10.89	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/29/94	32.18	20.24	11.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	32.18	20.26	11.92	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/20/95	32.18	23.58	8.60	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/19/95	32.18	22.34	9.84	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/12/95	32.18	21.08	11.10	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/13/95	32.18	20.33	11.85	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/12/96	32.18	21.77	10.41	--	SAMPLED ANNUALLY			<0.5	<0.5	<0.5	--	--
12/19/96	32.18	21.80	10.38	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/16/97	32.18	20.74	11.44	--	--	--	--	--	--	--	--	--

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WELL ID/ DATE	TOC* (ft.)	GWE (ms)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-10 (cont)</b>												
12/05/97	32.18	20.79	11.39	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/28/98	32.18	23.18	9.00	--	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/11/98	32.18	21.47	10.71	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
02/03/99	32.18	21.97	10.21	--	--	--	--	--	--	--	--	--
08/02/99	32.18	22.08	10.10	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
02/16/00	32.18	24.69	7.49	--	--	--	--	--	--	--	--	--
08/16/00	32.18	21.37	10.81	0.00	--	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	--
02/23/01	32.18	22.58	9.60	0.00	--	--	--	--	--	--	--	--
08/02/01	32.18	21.25	10.93	0.00	--	<50	<0.50	0.79	<0.50	<0.50	<2.5	--
02/13/02	32.18	22.69	9.49	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/02/02	32.18	21.19	10.99	0.00	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/03/03	32.18	22.34	9.84	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
08/01/03	32.18	21.34	10.84	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/05/04	32.18	22.55	9.63	0.00	SAMPLED ANNUALLY	--	--	--	--	--	--	--
07/08/04	34.29	23.51	10.78	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
<b>E-1</b>												
09/04/91	--	--	--	--	2,000	7,800	120	23	180	280	--	--
10/07/91	30.28	19.53	10.75	--	--	--	--	--	--	--	--	--
12/30/91 <sup>2</sup>	28.95	19.44	9.51	--	<50	3,000	42	12	88	170	--	--
03/19/92	28.95	21.45	7.50	--	<50	6,900	170	9.8	310	480	--	--
06/11/92	28.95	20.73	8.22	--	--	7,200	110	19	240	450	--	--
09/15/92	28.95	20.08	10.20	--	--	8,400	160	50	240	400	--	--
12/22/92	28.95	19.97	10.31	--	--	7,600	140	12	310	370	--	--
03/22/93	28.95	22.97	7.31	--	--	11,000	230	41	600	1,100	--	--
06/21/93 <sup>3</sup>	30.28	21.33	8.95	--	--	2,400	65	8.0	84	97	--	--
09/03/93 <sup>2</sup>	28.95	20.41	8.54	--	--	4,000	110	7.0	310	170	--	--
12/15/93	30.28	18.79	10.16	--	--	1,300	27	<0.5	20	17	--	--
03/16/94	30.28	21.23	9.05	--	--	1,800	67	<0.5	100	93	--	--
06/13/94	30.28	21.23	9.05	--	--	2,600	73	<5.0	83	140	--	--
09/29/94	30.28	19.30	10.98	--	--	3,700	130	<10	95	110	--	--
12/07/94	30.28	20.38	9.90	--	--	2,600	63	<5.0	120	78	--	--



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL-ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>E-1 (cont)</b>												
03/20/95	30.28	23.32	6.96	--	--	420	8.1	1.6	17	15	--	--
06/19/95	30.28	22.24	8.04	--	--	960	3.8	<1.2	13	9.8	--	--
09/12/95	30.28	20.68	9.60	--	--	980	13	<0.5	11	18	--	--
12/13/95	30.28	20.30	9.98	--	--	<50	<0.5	<0.5	<0.5	0.51	--	--
06/12/96	30.28	21.71	8.57	--	--	2,900	27	<0.5	61	38	--	--
12/19/96	30.28	21.95	8.33	--	--	450	15	<0.5	15	5.7	--	--
06/16/97	30.28	20.76	9.52	--	--	2,400	10	<2.5	6.3	12	<12	--
12/05/97	30.28	20.78	9.50	--	--	490	8.3	8.2	34	5.4	<2.5	--
05/28/98	30.28	23.38	6.90	--	--	2,100	1.4	<0.3	<0.3	3.4	<10	--
08/11/98	30.28	21.47	8.81	--	--	2,100	<5.0	<5.0	12	9.4	<25	--
02/03/99	30.28	22.25	8.03	--	--	210	11	<0.5	<0.5	2.7	12	--
08/02/99	30.28	22.59	7.69	--	--	888	20.8	39.4	8.14	35	<10	--
02/16/00	30.28	23.97	6.31	--	--	385	38.1	1.19	15.8	11.8	2.77	--
08/16/00	30.28	21.75	8.53	0.00	--	316 <sup>5</sup>	3.63	<0.500	0.811	<0.500	<5.00	--
02/23/01	30.28	23.28	7.00	0.00	--	150 <sup>6</sup>	10	0.85	<0.50	3.6	4.2	--
08/02/01	30.28	21.85	8.43	0.00	--	410	1.1	1.4	0.50	0.63	8.0/8.6 <sup>7</sup>	--
02/13/02	30.28	23.45	6.83	0.00	--	610	5.0	<0.50	14	<1.5	14/13 <sup>7</sup>	--
08/02/02	30.28	22.00	8.28	0.00	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>7</sup>	--
02/03/03	30.28	23.11	7.17	0.00	--	130	0.94	<0.50	1.2	<1.5	7.2/7 <sup>7</sup>	--
08/01/03	30.28	22.12	8.16	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<2 <sup>7</sup>	--
02/05/04	30.28	23.27	7.01	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<2 <sup>7</sup>	--
07/08/04	32.67	23.33	9.34	0.00	--	170	<0.5	<0.5	<0.5	<1.5	12/12 <sup>7</sup>	--
<b>E-2</b>												
09/04/91	--	--	--	--	<50	130	<0.5	<0.5	<0.5	0.7	--	--
10/07/91	30.50	19.59	10.91	--	--	--	--	--	--	--	--	--
12/30/91 <sup>2</sup>	29.40	19.52	9.88	--	<50	330	<0.5	0.5	0.9	1.4	--	--
03/19/92	29.40	21.70	7.70	--	<50	340	<0.5	<0.5	1.4	1.5	--	--
06/11/92	29.40	20.82	8.58	--	--	200	<0.5	0.9	0.6	2.8	--	--
09/15/92	29.40	20.15	10.35	--	--	160	<0.5	<0.5	0.6	1.6	--	--
12/22/92	29.40	20.05	10.45	--	--	200	2.0	1.7	2.2	5.4	--	--
03/22/93	29.40	22.59	7.91	--	--	480	0.5	<0.5	3.0	2.0	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOC (ppb)
<b>E-2 (cont)</b>												
06/21/93 <sup>3</sup>	30.50	24.40	6.10	--	--	180	0.6	0.6	1.0	1.0	--	--
09/03/93 <sup>2</sup>	32.18	20.53	11.65	--	--	--	--	--	--	--	--	--
09/24/93 <sup>4</sup>	32.18	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/93	30.50	21.90	10.28	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	30.50	21.29	9.21	--	--	95	<0.5	<0.5	<0.5	<0.5	--	--
06/13/94	30.50	21.28	9.22	--	--	89	<0.5	<0.5	<0.5	0.63	--	--
09/29/94	30.50	20.18	10.32	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	30.50	21.18	9.32	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/20/95	30.50	23.34	7.16	--	--	120	2.7	<0.5	<0.5	<0.5	--	--
06/19/95	30.50	22.28	8.22	--	--	150	6.7	<0.5	<0.5	<0.5	--	--
09/12/95	30.50	20.80	9.70	--	--	57	<0.5	<0.5	<0.5	<0.5	--	--
12/13/95	30.50	20.48	10.02	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/12/96	30.50	21.69	8.81	--	--	58	<0.5	<0.5	<0.5	<0.5	--	--
12/19/96	30.50	21.84	8.66	--	--	75	<0.5	<0.5	<0.5	<0.5	--	--
06/16/97	30.50	20.83	9.67	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/05/97	30.50	21.09	9.41	--	--	66	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/28/98	30.50	23.35	7.15	--	--	170	0.58	<0.5	<0.5	<0.5	<2.5	--
08/11/98	30.50	21.52	8.98	--	--	61	<0.5	0.9	0.54	<0.6	<10	--
02/03/99	30.50	22.29	8.21	--	--	<50	<0.5	<0.5	<0.5	<0.5	2.9	--
08/02/99	30.50	22.31	8.19	--	--	330	<0.5	<0.5	<0.5	<0.5	3.4	--
02/16/00	30.50	24.47	6.03	--	--	73.4	18.6	41.5	7.17	35.6	30.9	--
08/16/00	30.50	22.38	8.12	0.00	--	64.3 <sup>6</sup>	<0.5	<0.5	<0.5	<0.5	<2.5	--
02/23/01	30.50	23.19	7.31	0.00	--	<50	<0.5	<0.500	<0.500	<0.500	43.5	--
08/02/01	30.50	20.86	9.64	0.00	--	55	<0.5	<0.5	<0.5	<0.5	<2.5	--
02/13/02	30.50	23.24	7.26	0.00	--	<50	<0.5	0.63	<0.50	0.52	15/17 <sup>7</sup>	--
08/02/02	30.50	21.80	8.70	0.00	--	<50	<0.5	<0.50	<0.50	<1.5	<2.5/2 <sup>7</sup>	--
02/03/03	30.50	22.92	7.58	0.00	--	<50	<0.5	<0.50	<0.50	<1.5	7.7/8 <sup>7</sup>	--
08/01/03	30.50	21.97	8.53	0.00	--	<50	<0.5	0.51	<0.50	<1.5	<2.5/2 <sup>7</sup>	--
02/05/04	30.50	23.06	7.44	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	2.6/3 <sup>7</sup>	--
07/08/04	32.60	23.45	9.15	0.00	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<2 <sup>7</sup>	--
							<0.5	<0.5	<0.5	<1.5	11/9 <sup>7</sup>	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>TRIP BLANK</b>												
06/21/93	--	--	--	--	--	<50	0.5	0.5	0.5	0.5	--	--
09/03/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/24/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/16/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/13/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/29/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/07/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/20/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/19/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/12/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/13/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/12/96	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/19/96	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/16/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
12/05/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/28/98	--	--	--	--	--	<50	<0.3	<0.3	<0.3	<0.6	<10	--
08/11/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
02/03/99	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
02/16/00	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
08/16/00	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	--
02/23/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
08/02/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
<b>QA</b>												
02/13/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
08/02/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/03/03	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
08/01/03	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/05/04	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/08/04	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to August 16, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing	TPH-G = Total Petroleum Hydrocarbons as Gasoline	(ppb) = Parts per billion
(ft.) = Feet	B = Benzene	-- = Not Measured/Not Analyzed
GWE = Groundwater Elevation	T = Toluene	QA = Quality Assurance/Trip Blank
(msl) = Mean sea level	E = Ethylbenzene	
DTW = Depth to Water	X = Xylenes	
SPHT = Separate Phase Hydrocarbon Thickness	MTBE = Methyl tertiary butyl ether	
TPH-D = Total Petroleum Hydrocarbons as Diesel	TOG = Total Oil and Grease	

\* TOC elevations for the following wells (MW-3A, MW-7, MW-8, MW-9, MW-10, E-1, & E-2) were surveyed on July 8, 2004, by Morrow Surveying. The benchmark for the survey was referenced to GEOID NGS99, coordinate datum is NAD 83(1986).

- 1 Casing bent on well.
- 2 Well Elevations and DTW measured from top of casing.
- 3 Well Elevations and DTW measured from top of box.
- 4 Laboratory missed hold times, resampled 09/24/93.
- 5 Laboratory report indicates weathered gasoline C6-C12.
- 6 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 7 MTBE by EPA Method 8260.
- 8 Well development performed.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID	DATE	METHANOL (ppb)	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	08/02/01	--	<1,000	<100	15	<2.0	<2.0	<2.0	<2.0	<2.0
	08/02/02	--	--	<100	750	<2	<2	4	<2	--
	02/03/03	--	SAMPLED ANNUALLY		--	--	--	--	--	--
	08/01/03	--	--	<100	81	<2	<2	<2	<2	--
DESTROYED - DECEMBER 2003										
MW-3A	07/08/04	<1,000	<500	<100	45	<2	<2	9	<2	--
MW-7	08/02/01	--	<1,000	<100	18	<2.0	<2.0	<2.0	--	--
	02/13/02	--	--	<100	4	<2	<2	<2	--	--
	08/02/02	--	--	<100	7	<2	<2	<2	--	--
	02/03/03	--	--	<100	<2	<2	<2	<2	--	--
	08/01/03	--	--	<100	2	<2	<2	<2	--	--
	02/05/04	--	--	<100	<2	<2	<2	<2	--	--
	07/08/04	<1,000	<500	<100	<2	<2	<2	<2	--	--
MW-8	07/08/04	<1,000	<500	--	--	--	--	--	--	--
MW-9	08/02/01	--	<1,000	<100	23	<2.0	<2.0	10	--	--
	08/02/02	--	--	<100	9	<2	<2	2	--	--
	02/03/03	--	SAMPLED ANNUALLY		--	--	--	--	--	--
	08/01/03	--	--	<100	13	<2	<2	3	--	--
	07/08/04	<1,000	<500	<100	4	<2	<2	<2	--	--
MW-10	07/08/04	<1,000	<500	--	--	--	--	--	--	--
E-1	08/02/01	--	<1,000	<100	8.6	<2.0	<2.0	2.2	<2.0	<2.0
	02/13/02	--	--	<100	13	<2	<2	4	<2	--
	08/02/02	--	--	<100	<2	<2	<2	<2	<2	--

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

WELL ID	DATE	METHANOL (ppb)	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
E-1 (cont)	02/03/03	--	--	<100	7	<2	<2	<2	<2	--
	08/01/03	--	--	<100	<2	<2	<2	<2	<2	--
	02/05/04	--	--	<100	<2	<2	<2	<2	<2	--
	07/08/04	<1,000	<500	<100	12	<2	<2	<2	<2	--
E-2	08/02/01	--	<1,000	<100	17	<2.0	<2.0	7.5	--	--
	02/13/02	--	--	<100	2	<2	<2	<2	--	--
	08/02/02	--	--	<100	8	<2	<2	<2	--	--
	02/03/03	--	--	<100	2	<2	<2	<2	--	--
	08/01/03	--	--	<100	3	<2	<2	<2	--	--
	02/05/04	--	--	<100	<2	<2	<2	<2	--	--
	07/08/04	<1,000	<500	<100	9	<2	<2	2	--	--

**Table 2**

**Groundwater Analytical Results - Oxygenate Compounds**

Chevron Service Station #9-0499  
404 Soquel Avenue  
Santa Cruz, California

**EXPLANATIONS:**

TBA = Tertiary butyl alcohol  
MTBE = Methyl tertiary butyl ether  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = Tertiary amyl methyl ether  
1,2-DCA = 1,2-Dichloroethane  
EDB = 1,2-Dibromoethane  
(ppb) = Parts per billion  
-- = Not Analyzed

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

**Table 3**  
**Joint Groundwater Monitoring Data and Analytical Results**  
Former Arco Station #2132  
411 Soquel Avenue  
Santa Cruz, California

WELL ID/ TOC(ft.)	DATE	DTW (ft.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	02/13/02	10.98	-- <sup>1</sup>	<50	<0.50	2.2	0.71	3.7	--/ <1.0 <sup>2</sup>
	01/14/03 <sup>4,5</sup>	11.03	-- <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	02/05/04 <sup>7</sup>	--	--	--	--	--	--	--	--
MW-2	02/13/02	5.79	-- <sup>1</sup>	2,400 <sup>3</sup>	14	5.3	33	23	--/ <1.0 <sup>2</sup>
	01/14/03 <sup>4,5</sup>	6.46	-- <sup>1</sup>	1,600 <sup>6</sup>	<0.50	0.53	4.2	9.9	<0.50
	02/05/04 <sup>7</sup>	--	--	--	--	--	--	--	--
MW-3	02/13/02	5.98	-- <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	--/ <1.0 <sup>2</sup>
	01/14/03 <sup>4,5</sup>	5.10	-- <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	1.8
	02/05/04 <sup>7</sup>	--	--	--	--	--	--	--	--

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results were provided by Secor International, Inc., during the first quarter only.

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

<sup>1</sup> TOC not available

<sup>2</sup> MTBE by EPA Method 8260.

<sup>3</sup> Laboratory report indicates weathered gasoline C6-C12.

<sup>4</sup> TPH-G, BTEX and MTBE by EPA Method 8260

<sup>5</sup> Joint Monitoring was conducted on a different date then Chevron Service Station #9-0499

<sup>6</sup> Laboratory report indicates the concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

<sup>7</sup> Joint Monitoring was not performed; site on hold.

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to well development, each well is monitored for the presence of free-phase hydrocarbons and the depth to water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by ChevronTexaco Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

# WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility #: **ChevronTexaco #9-0499**  
 Site Address: **404 Soquel Avenue**  
 City: **Santa Cruz, CA**

Job Number: **386833**  
 Event Date: **7/8/04**  
 Sampler: **HAIG R**

Well ID: **MW-3A**  
 Well Diameter: **4** in.  
 Initial Total Depth: **20.88** ft.  
 Final Total Depth: **21.02** ft.  
 Depth to Water: **9.34** ft.

Date Monitored: **7/8/04** Well Condition: **NEW**

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

**11.46** x VF **0.66** = **7.5** x10 (case volume) = Estimated Purge Volume: **75** gal.

**Purge Equipment:**

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer **✓ 2.5 gal.**  
 Stack Pump **✓**  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**

Disposable Bailer **✓**  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: **0.0** ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): **1208** Weather Conditions: **CLOUDY**  
 Sample Time/Date: **1240/7/8/04** Water Color: **CLOUDY** Odor: \_\_\_\_\_  
 Purging Flow Rate: **2.34** gpm. Sediment Description: **SAND**  
 Did well de-water? **NO** If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
1215	8	7.25	538	20.0		
1219	16	7.12	562	20.6		
1222	25	7.06	575	19.5		
1225	35	7.14	570	19.9		
1227	45	7.10	586	20.1		
1229	55	7.08	577	19.5		
1231	65	7.15	572	19.3		
1234	75	7.09	584	19.5		

**LABORATORY INFORMATION**

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3A	6 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8021)/ 6 OXYS(8260)
	↓				<b>ETHANOL/METHANOL</b>

**COMMENTS:**

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #9-0499  
Site Address: 404 Soquel Avenue  
City: Santa Cruz, CA

Job Number: 386833  
Event Date: 7/8/04 (inclusive)  
Sampler: HAI G R.

Well ID: MW-7  
Well Diameter: 4 in.  
Total Depth: 12.28 ft.  
Depth to Water: 6.38 ft.  
5.90

Date Monitored: 7/8/04 Well Condition: OK

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF 0.66 = 3.8 x3 case volume= Estimated Purge Volume: 11.4 gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
Stainless Steel Bailer \_\_\_\_\_  
Stack Pump ✓  
Suction Pump \_\_\_\_\_  
Grundfos \_\_\_\_\_  
Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ✓  
Pressure Bailer \_\_\_\_\_  
Discrete Bailer \_\_\_\_\_  
Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
Time Bailed: \_\_\_\_\_ (2400 hrs)  
Depth to Product: \_\_\_\_\_ ft  
Depth to Water: \_\_\_\_\_ ft  
Hydrocarbon Thickness: 0 ft  
Visual Confirmation/Description: \_\_\_\_\_  
Skimmer / Absorbant Sock (circle one)  
Amt Removed from Skimmer: \_\_\_\_\_ gal  
Amt Removed from Well: \_\_\_\_\_ gal  
Water Removed: \_\_\_\_\_  
Product Transferred to: \_\_\_\_\_

Start Time (purge): 1015 Weather Conditions: CLOUDY  
Sample Time/Date: 1035 7/8/04 Water Color: CLOUDY Odor: NO  
Purging Flow Rate: 2 gpm. Sediment Description: \_\_\_\_\_  
Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	<del>D.O. (mg/L)</del>	<del>ORP (mV)</del>
<u>1017</u>	<u>4</u>	<u>7.21</u>	<u>662</u>	<u>21.4</u>		
<u>1019</u>	<u>8</u>	<u>7.16</u>	<u>680</u>	<u>21.9</u>		
<u>1022</u>	<u>12</u>	<u>7.14</u>	<u>689</u>	<u>21.5</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021)-OR-
	6 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021)
	↓				5 OXYS(8260)
					ETHANOL/METHANOL

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: **ChevronTexaco #9-0499**  
Site Address: **404 Soquel Avenue**  
City: **Santa Cruz, CA**

Job Number: **386833**  
Event Date: **7/8/04** (inclusive)  
Sampler: **HAIG K.**

Well ID: **MW-8**  
Well Diameter: **4** in.  
Total Depth: **13.46** ft.  
Depth to Water: **7.86** ft.

Date Monitored: **7/8/04** Well Condition: **OK**

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.60 x VF 0.66 = 3.69 x3 case volume= Estimated Purge Volume: **11** gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
Stainless Steel Bailer \_\_\_\_\_  
Stack Pump ☒  
Suction Pump \_\_\_\_\_  
Grundfos \_\_\_\_\_  
Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ☒  
Pressure Bailer \_\_\_\_\_  
Discrete Bailer \_\_\_\_\_  
Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
Time Bailed: \_\_\_\_\_ (2400 hrs)  
Depth to Product: \_\_\_\_\_ ft.  
Depth to Water: \_\_\_\_\_ ft.  
Hydrocarbon Thickness: **0.0** ft.  
Visual Confirmation/Description: **OK**

Skimmer / Absorbant Sock (circle one)  
Amt Removed from Skimmer: \_\_\_\_\_ gal  
Amt Removed from Well: \_\_\_\_\_ gal  
Water Removed: \_\_\_\_\_  
Product Transferred to: \_\_\_\_\_

Start Time (purge): **1052** Weather Conditions: **CLOUDY**  
Sample Time/Date: **1110/7/8/04** Water Color: **CLEAR** Odor: **NO**  
Purging Flow Rate: **2** gpm. Sediment Description: \_\_\_\_\_  
Did well de-water? **NO** If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
1054	4	7.18	430	20.5		
1056	8	7.10	452	21.3		
1058	11	7.06	448	21.0		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	6 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8021) -OR-
	x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8021)
					OXYG(8260)
					ETHANOL/METHANOL

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #9-0499  
Site Address: 404 Soquel Avenue  
City: Santa Cruz, CA

Job Number: 386833  
Event Date: 7/8/04 (inclusive)  
Sampler: HAIG K

Well ID: MW-9  
Well Diameter: 4 in.  
Total Depth: 12.43 ft.  
Depth to Water: 8.05 ft.

Date Monitored: 7/8/04 Well Condition: OK

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

4.88 xVF 0.66 = 3 x3 case volume= Estimated Purge Volume: 9 gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
Stainless Steel Bailer \_\_\_\_\_  
Stack Pump ✓  
Suction Pump \_\_\_\_\_  
Grundfos \_\_\_\_\_  
Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ✓  
Pressure Bailer \_\_\_\_\_  
Discrete Bailer \_\_\_\_\_  
Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
Time Bailed: \_\_\_\_\_ (2400 hrs)  
Depth to Product: \_\_\_\_\_ ft  
Depth to Water: \_\_\_\_\_ ft  
Hydrocarbon Thickness: 0.5 ft  
Visual Confirmation/Description: \_\_\_\_\_  
Skimmer / Absorbant Sock (circle one)  
Amt Removed from Skimmer: \_\_\_\_\_ gal  
Amt Removed from Well: \_\_\_\_\_ gal  
Water Removed: \_\_\_\_\_  
Product Transferred to: \_\_\_\_\_

Start Time (purge): 1135 Weather Conditions: CLOUDY  
Sample Time/Date: 1152/7/8/04 Water Color: CLEAR Odor: NO  
Purging Flow Rate: 2 gpm. Sediment Description: \_\_\_\_\_  
Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1137</u>	<u>3</u>	<u>6.97</u>	<u>526</u>	<u>20.8</u>		
<u>1139</u>	<u>6</u>	<u>6.92</u>	<u>543</u>	<u>20.2</u>		
<u>1141</u>	<u>9</u>	<u>6.93</u>	<u>541</u>	<u>20.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021) -OR-
	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021)
	<u>1</u>				<u>5</u> OXYS(8260)
					<u>ETHANOL/METHANOL</u>

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN Inc.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: **ChevronTexaco #9-0499**  
 Site Address: **404 Soquel Avenue**  
 City: **Santa Cruz, CA**

Job Number: **386833**  
 Event Date: **7/8/04** (inclusive)  
 Sampler: **HAIG R.**

Well ID: **MW-10**  
 Well Diameter: **4** in.  
 Total Depth: **18.87** ft.  
 Depth to Water: **10.78** ft.  
**8.09** xVF **0.66** = **5** x3 case volume= Estimated Purge Volume: **15** gal.

Date Monitored: **7/8/04** Well Condition: **OK**

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump ☒  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ☒  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): **1254** Weather Conditions: **CLOUDY**  
 Sample Time/Date: **1310/7/8/04** Water Color: **CLEAR** Odor: \_\_\_\_\_  
 Purging Flow Rate: **2 1/2** gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? **NO** If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<b>1256</b>	<b>5</b>	<b>6.91</b>	<b>420</b>	<b>19.6</b>		
<b>1258</b>	<b>10</b>	<b>6.87</b>	<b>436</b>	<b>19.1</b>		
<b>1300</b>	<b>15</b>	<b>6.86</b>	<b>433</b>	<b>19.3</b>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	F x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021) -OR-
	x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021)
					OXYG(8260)
					ETHANOL/METHANOL

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: **1**

Size: **4"**



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #9-0499  
Site Address: 404 Soquel Avenue  
City: Santa Cruz, CA

Job Number: 386833  
Event Date: 7/18/04 (inclusive)  
Sampler: HAIG R

Well ID: E-1  
Well Diameter: 6 in.  
Total Depth: 16.177 ft.  
Depth to Water: 9.34 ft.  
7.43

Date Monitored: 7/18/04 Well Condition: OK \*

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

xVF 1.05 = 11 x3 case volume = Estimated Purge Volume: 33 gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
Stainless Steel Bailer \_\_\_\_\_  
Stack Pump ✓  
Suction Pump \_\_\_\_\_  
Grundfos \_\_\_\_\_  
Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ✓  
Pressure Bailer \_\_\_\_\_  
Discrete Bailer \_\_\_\_\_  
Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
Time Bailed: \_\_\_\_\_ (2400 hrs)  
Depth to Product: \_\_\_\_\_ ft.  
Depth to Water: \_\_\_\_\_ ft.  
Hydrocarbon Thickness: \_\_\_\_\_ ft.  
Visual Confirmation/Description: ✓  
Skimmer / Absorbant Sock (circle one)  
Amt Removed from Skimmer: \_\_\_\_\_ gal  
Amt Removed from Well: \_\_\_\_\_ gal  
Water Removed: \_\_\_\_\_  
Product Transferred to: \_\_\_\_\_

Start Time (purge): 1415 Weather Conditions: CLOUDY  
Sample Time/Date: 1440 7/18/04 Water Color: CLEAR Odor: \_\_\_\_\_  
Purging Flow Rate: 2 1/2 gpm. Sediment Description: \_\_\_\_\_  
Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( $\mu$ mhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1419</u>	<u>11</u>	<u>6.78</u>	<u>482</u>	<u>19.4</u>		
<u>1423</u>	<u>22</u>	<u>6.75</u>	<u>477</u>	<u>18.8</u>		
<u>1428</u>	<u>33</u>	<u>6.72</u>	<u>494</u>	<u>19.2</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
E-1	6 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8021)/ 6 OXYS(8260) <u>ETHANOL/METHANOL</u>

COMMENTS: \* 6" NEW WELL PLUG NEEDED.

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: **ChevronTexaco #9-0499**  
Site Address: **404 Soquel Avenue**  
City: **Santa Cruz, CA**

Job Number: **386833**  
Event Date: **7/8/04** (inclusive)  
Sampler: **HAI G R**

Well ID: **E-2**  
Well Diameter: **6** in.  
Total Depth: **16.63** ft.  
Depth to Water: **9.15** ft.

Date Monitored: **7/8/04** Well Condition: **OK**

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF **1.15** = **11** x3 case volume= Estimated Purge Volume: **33** gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
Stainless Steel Bailer \_\_\_\_\_  
Stack Pump ☒ \_\_\_\_\_  
Suction Pump \_\_\_\_\_  
Grundfos \_\_\_\_\_  
Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ☒ \_\_\_\_\_  
Pressure Bailer \_\_\_\_\_  
Discrete Bailer \_\_\_\_\_  
Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
Time Bailed: \_\_\_\_\_ (2400 hrs)  
Depth to Product: \_\_\_\_\_ ft  
Depth to Water: \_\_\_\_\_ ft  
Hydrocarbon Thickness: \_\_\_\_\_ ft  
Visual Confirmation/Description: **OK**

Skimmer / Absorbant Sock (circle one)  
Amt Removed from Skimmer: \_\_\_\_\_ gal  
Amt Removed from Well: \_\_\_\_\_ gal  
Water Removed: \_\_\_\_\_  
Product Transferred to: \_\_\_\_\_

Start Time (purge): **1330** Weather Conditions: **CLOUDY**  
Sample Time/Date: **1355 7/8/04** Water Color: **CLEAR** Odor: \_\_\_\_\_  
Purging Flow Rate: **2 1/2 gpm.** Sediment Description: \_\_\_\_\_  
Did well de-water? **NO** If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<b>1334</b>	<b>11</b>	<b>6.86</b>	<b>394</b>	<b>18.9</b>		
<b>1338</b>	<b>22</b>	<b>6.82</b>	<b>420</b>	<b>19.5</b>		
<b>1342</b>	<b>33</b>	<b>6.80</b>	<b>412</b>	<b>18.6</b>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
E-2	6 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTX+MTBE(8021)/ 5 OXYS(8260) <b>METHANOL/ETHANOL</b>

COMMENTS: **\* 6" WELL PLUG NEEDED.**

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only  
 Act #: 11260 Sample #: 4309830-37

SCR#: 903474

071204-04

Facility #: SS#9-0499 G-R#386833 GLOBAL ID# T0608700233  
 Site Address: 404 Soquel Avenue, Santa Cruz, CA  
 Chevron PM: ML Lead Consultant: SAICJM  
 Consultant/Office: G-R Inc, 6747 Sierra Ct, Dublin, CA 94568  
 Consultant Prj. Mgr.: Deanna L. Harding deanna@grinc.com  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899

Sampler: Haig Kevork

Service Order #:                      ☐ Non SAR:

Analyses Requested				Matrix				Preservation Codes				Preservative Codes			
				<input checked="" type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Soil				<input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 8020 <input type="checkbox"/> 8021				<input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 8020 <input type="checkbox"/> 8021			
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# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

## ANALYTICAL RESULTS

Prepared for:

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583  
925-842-8582

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

## SAMPLE GROUP

The sample group for this submittal is 903474. Samples arrived at the laboratory on Tuesday, July 13, 2004. The PO# for this group is 99011184 and the release number is LAFFERTY.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
QA-T-040708	NA Water	4309830
MW-3A-W-040708	Grab Water	4309831
MW-7-W-040708	Grab Water	4309832
MW-8-W-040708	Grab Water	4309833
MW-9-W-040708	Grab Water	4309834
MW-10-W-040708	Grab Water	4309835
E-1-W-040708	Grab Water	4309836
E-2-W-040708	Grab Water	4309837

1 COPY TO SAIC  
ELECTRONIC Gettler-Ryan  
COPY TO

Attn: Ms. Deanna Harding  
Attn: Cheryl Hansen



## ***Analysis Report***

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • [www.lancasterlabs.com](http://www.lancasterlabs.com)

Questions? Contact your Client Services Representative  
Teresa L Cunningham at (717) 656-2300.

Respectfully Submitted,

A handwritten signature in black ink that reads "Victoria M. Martell".

Victoria M. Martell  
Chemist



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Lancaster Laboratories Sample No. WW 4309830

QA-T-040708 NA Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 QA  
Collected: 07/08/2004

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received	Units	Dilution Factor
				Method Detection Limit		
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline	1	07/15/2004 09:36	Linda C Pape	1
08214	BTEX, MTBE (8021)	Method SW-846 8021B	1	07/15/2004 09:36	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/15/2004 09:36	Linda C Pape	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309831

MW-3A-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-3A  
Collected: 07/08/2004 12:40 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQ3A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	47.	2.5	ug/l	1
06065	5 Oxygenates+EDC+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	45.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	9.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 12:30	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/15/2004 15:04	Linda C Pape	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/15/2004 15:04	Linda C Pape	1
06065	5 Oxygenates+EDC+ETOH	SW-846 8260B	1	07/19/2004 04:49	Marc S Neal	1

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309831

MW-3A-W-040708      Grab      Water  
Facility# 90499      Job# 386833      GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-3A  
Collected: 07/08/2004 12:40      by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQ3A						
01146	GC VOA Water Prep	SW-846 5030B	1	07/15/2004 15:04	Linda C Pape	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/19/2004 04:49	Marc S Neal	n.a.



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309832

MW-7-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-7  
Collected: 07/08/2004 10:35 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQM7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.	n.a.	N.D.	50.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	2.6	2.5	ug/l	1
06064	5 Oxygenates+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 12:44	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/15/2004 15:37	Linda C Pape	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/15/2004 15:37	Linda C Pape	1
06064	5 Oxygenates+ETOH	SW-846 8260B	1	07/19/2004 03:41	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/15/2004 15:37	Linda C Pape	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309832

MW-7-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-7  
Collected: 07/08/2004 10:35 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQM7

01163 GC/MS VOA Water Prep

SW-846 5030B

1 07/19/2004 03:41 Marc S Neal

n.a.





# Analysis Report

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Lancaster Laboratories Sample No. WW 4309833

MW-8-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-8  
Collected: 07/08/2004 11:10 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQM8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.	n.a.	110.	50.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 12:57	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/15/2004 16:10	Linda C Pape	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/15/2004 16:10	Linda C Pape	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	07/15/2004 13:56	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/15/2004 16:10	Linda C Pape	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/15/2004 13:56	Anita M Dale	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



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Lancaster Laboratories Sample No. WW 4309834

MW-9-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-9  
Collected: 07/08/2004 11:52 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQM9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	6.3	2.5	ug/l	1
06064	5 Oxygenates+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	4.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 13:11	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline	1	07/18/2004 18:17	Linda C Pape	1
08214	BTEX, MTBE (8021)	Method SW-846 8021B	1	07/18/2004 18:17	Linda C Pape	1
06064	5 Oxygenates+ETOH	SW-846 8260B	1	07/19/2004 04:08	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/18/2004 18:17	Linda C Pape	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit

N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309834

MW-9-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-9  
Collected: 07/08/2004 11:52 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQM9  
01163 GC/MS VOA Water Prep SW-846 5030B 1 07/19/2004 04:08 Marc S Neal n.a.



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309835

MW-10-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 MW-10  
Collected: 07/08/2004 13:10 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQ10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	Units	Dilution Factor
				Detection Limit		
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 13:24	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/15/2004 16:43	Linda C Pape	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/15/2004 16:43	Linda C Pape	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	07/15/2004 11:40	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/15/2004 16:43	Linda C Pape	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/15/2004 11:40	Anita M Dale	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309836

E-1-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 E-1  
Collected: 07/08/2004 14:40 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQE1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.	n.a.	170.	50.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	12.	2.5	ug/l	1
06065	5 Oxygenates+EDC+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	12.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 13:38	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/15/2004 17:16	Linda C Pape	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/15/2004 17:16	Linda C Pape	1
06065	5 Oxygenates+EDC+ETOH	SW-846 8260B	1	07/19/2004 05:16	Marc S Neal	1

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309836

E-1-W-040708                      Grab                      Water  
Facility# 90499                      Job# 386833                      GRD  
404 Soquel Ave-Santa Cruz T0608700233 E-1  
Collected: 07/08/2004 14:40                      by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:55  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQE1						
01146	GC VOA Water Prep	SW-846 5030B	1	07/15/2004 17:16	Linda C Pape	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/19/2004 05:16	Marc S Neal	n.a.



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Lancaster Laboratories Sample No. WW 4309837

E-2-W-040708 Grab Water  
Facility# 90499 Job# 386833 GRD  
404 Soquel Ave-Santa Cruz T0608700233 E-2  
Collected: 07/08/2004 13:55 by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:56  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQE2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	1,000.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.	n.a.	N.D.	50.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.5	ug/l	1
00777	Toluene	108-88-3	N.D.	0.5	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	11.	2.5	ug/l	1
06064	5 Oxygenates+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	9.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	2.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01412	Methanol and Ethanol	SW-846 8015B	1	07/14/2004 13:51	Lisa A Johnson	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/18/2004 18:53	Linda C Pape	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/18/2004 18:53	Linda C Pape	1
06064	5 Oxygenates+ETOH	SW-846 8260B	1	07/19/2004 04:35	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/18/2004 18:53	Linda C Pape	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



# Analysis Report

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Lancaster Laboratories Sample No. WW 4309837

E-2-W-040708                      Grab                      Water  
Facility# 90499                      Job# 386833                      GRD  
404 Soquel Ave-Santa Cruz T0608700233 E-2  
Collected: 07/08/2004 13:55                      by HK

Account Number: 11260

Submitted: 07/13/2004 15:20  
Reported: 07/20/2004 at 00:56  
Discard: 08/20/2004

ChevronTexaco  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

SOQE2  
01163      GC/MS VOA Water Prep                      SW-846 5030B                      1      07/19/2004 04:35      Marc S Neal                      n.a.



## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 07/20/04 at 12:56 AM

Group Number: 903474

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

## Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 041960001A Methanol (by Direct Injection)	N.D.	1000.	ug/l	104		76-119		
Batch number: 04197A51A								
Benzene	N.D.	0.5	ug/l	107	106	79-123	1	30
Toluene	N.D.	0.5	ug/l	107	107	82-119	1	30
Ethylbenzene	N.D.	.5	ug/l	108	107	81-119	0	30
Total Xylenes	N.D.	1.5	ug/l	109	109	82-120	0	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	116	116	75-125	1	30
TPH-GRO - Waters	N.D.	50.	ug/l	111	108	70-130	3	30
Batch number: 04197A53C								
Benzene	N.D.	0.5	ug/l	112	109	79-123	3	30
Toluene	N.D.	0.5	ug/l	106	103	82-119	3	30
Ethylbenzene	N.D.	.5	ug/l	103	109	81-119	5	30
Total Xylenes	N.D.	1.5	ug/l	102	110	82-120	7	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	115	118	75-125	2	30
TPH-GRO - Waters	N.D.	50.	ug/l	95	89	70-130	7	30
Batch number: Z041972AA								
Ethanol	N.D.	500.	ug/l	120		46-145		
Batch number: Z042001AA								
Ethanol	N.D.	500.	ug/l	93		46-145		
Methyl Tertiary Butyl Ether	N.D.	2.	ug/l	111		77-127		
di-Isopropyl ether	N.D.	2.	ug/l	118		67-130		
Ethyl t-butyl ether	N.D.	2.	ug/l	105		74-120		
t-Amyl methyl ether	N.D.	2.	ug/l	98		79-113		
t-Butyl alcohol	N.D.	100.	ug/l	94		57-141		
1,2-Dichloroethane	N.D.	2.	ug/l	103		77-132		
Batch number: Z042002AA								
Ethanol	N.D.	500.	ug/l	112		46-145		
Methyl Tertiary Butyl Ether	N.D.	2.	ug/l	100		77-127		
di-Isopropyl ether	N.D.	2.	ug/l	108		67-130		
Ethyl t-butyl ether	N.D.	2.	ug/l	97		74-120		
t-Amyl methyl ether	N.D.	2.	ug/l	87		79-113		
t-Butyl alcohol	N.D.	100.	ug/l	84		57-141		

## Sample Matrix Quality Control

MS      MSD      MS/MSD      RPD      BKG      DUP      DUP      Dup RPD

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 07/20/04 at 12:56 AM

Group Number: 903474

Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Batch number: 041960001A	Sample number(s): 4309831-4309837								
Methanol (by Direct Injection)	100	100	72-122	0	20				
Batch number: 04197A51A	Sample number(s): 4309830-4309833, 4309835-4309836								
Benzene	107		67-136						
Toluene	108		78-129						
Ethylbenzene	108		75-133						
Total Xylenes	110		78-130						
Methyl tert-Butyl Ether	110		59-148						
TPH-GRO - Waters	113		63-154						
Batch number: 04197A53C	Sample number(s): 4309834, 4309837								
Benzene	104	107	67-136	3	30				
Toluene	103	102	78-129	1	30				
Ethylbenzene	108	107	75-133	1	30				
Total Xylenes	110	109	78-130	0	30				
Methyl tert-Butyl Ether	111	111	59-148	0	30				
TPH-GRO - Waters	93	97	63-154	4	30				
Batch number: Z041972AA	Sample number(s): 4309833, 4309835								
Ethanol	119	117	41-155	1	30				
Batch number: Z042001AA	Sample number(s): 4309831, 4309836								
Ethanol	93	89	41-155	5	30				
Methyl Tertiary Butyl Ether	102	84	69-134	11	30				
di-Isopropyl ether	127	125	75-130	2	30				
Ethyl t-butyl ether	113	111	78-119	1	30				
t-Amyl methyl ether	104	102	77-117	2	30				
t-Butyl alcohol	98	97	51-147	1	30				
1,2-Dichloroethane	108	106	73-136	2	30				
Batch number: Z042002AA	Sample number(s): 4309832, 4309834, 4309837								
Ethanol	118	116	41-155	1	30				
Methyl Tertiary Butyl Ether	101	99	69-134	2	30				
di-Isopropyl ether	110	108	75-130	2	30				
Ethyl t-butyl ether	95	94	78-119	1	30				
t-Amyl methyl ether	88	85	77-117	3	30				
t-Butyl alcohol	84	83	51-147	0	30				

## Surrogate Quality Control

Analysis Name: Methanol and Ethanol  
Batch number: 041960001A  
Acetone

4309831	98
4309832	97
4309833	99
4309834	99
4309835	103
4309836	100
4309837	100
Blank	99
LCS	98

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 07/20/04 at 12:56 AM

Group Number: 903474

### Surrogate Quality Control

MS 98  
MSD 99

Limits: 80-132

Analysis Name: TPH-GRO - Waters  
Batch number: 04197A51A

	Trifluorotoluene-F	Trifluorotoluene-P
4309830	104	101
4309831	110	103
4309832	106	101
4309833	106	100
4309835	107	104
4309836	104	105
Blank	104	102
LCS	112	104
LCSD	113	104
MS	110	105

Limits: 57-146 66-136

Analysis Name: TPH-GRO - Waters  
Batch number: 04197A53C

	Trifluorotoluene-F	Trifluorotoluene-P
4309834	97	102
4309837	98	94
Blank	97	103
LCS	95	107
LCSD	104	104
MS	96	101
MSD	98	100

Limits: 57-146 66-136

Analysis Name: BTEX+5 Oxygenates+EDC+EDB+ETOH  
Batch number: Z041972AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4309833	104	107	109	96
4309835	103	107	110	96
Blank	103	107	109	95
LCS	102	106	109	97
MS	102	108	109	98
MSD	102	108	110	98

Limits: 81-120 82-112 85-112 83-113

Analysis Name: 5 Oxygenates+EDC+ETOH  
Batch number: Z042001AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4309831	96	96	95	87
4309836	95	97	98	88
Blank	97	98	98	88
LCS	96	99	98	91
MS	96	99	97	91

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 07/20/04 at 12:56 AM

Group Number: 903474

### Surrogate Quality Control

MSD	97	99	97	90
Limits:	81-120	82-112	85-112	83-113
Analysis Name: 5 Oxygenates+ETOH				
Batch number: Z042002AA				
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4309832	105	106	107	93
4309834	106	105	107	94
4309837	105	105	106	95
Blank	106	107	107	93
LCS	105	105	108	98
MS	106	106	108	97
MSD	105	106	108	97
Limits:	81-120	82-112	85-112	83-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns $>25\%$	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	<b>*</b>	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	<b>+</b>	Correlation coefficient for MSA $<0.995$

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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**ATTACHMENT E**  
**CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION**



## Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

### ANALYTICAL RESULTS

Prepared for:

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

925-842-8582

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

### SAMPLE GROUP

The sample group for this submittal is 894218. Samples arrived at the laboratory on Friday, April 30, 2004. The PO# for this group is 99011184 and the release number is LAFFERTY.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
MW-3A-S-6-040429	Grab Soil	4264652
MW-3A-S-9-040429	Grab Soil	4264653
MW-3A-S-15-040429	Grab Soil	4264654
MW-3A-S-19-040429	Grab Soil	4264655

1 COPY TO SAIC

Attn: Joe Muzzio



## ***Analysis Report***

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Questions? Contact your Client Services Representative  
Teresa L Cunningham at (717) 656-2300.

Respectfully Submitted,

A handwritten signature in cursive script that reads "Jenifer E. Hess".

Jenifer Hess  
Group Leader





# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 2

Lancaster Laboratories Sample No. SW 4264652

MW-3A-S-6-040429 Grab Soil  
Facility# 90499 SAIC

404 Soquel Ave Santa Cruz T0608700233 NA

Collected: 04/29/2004 09:11 by KB Account Number: 11255

Submitted: 04/30/2004 10:30

Reported: 05/07/2004 at 13:21

Discard: 06/07/2004

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

CA3A6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01725	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
01428	Methanol and Ethanol					
01429	Ethanol (by Direct Injection)	64-17-5	N.D.	0.20	mg/kg	1
01431	Methanol (by Direct Injection)	67-56-1	N.D.	0.20	mg/kg	1
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	0.082	0.0005	mg/kg	1.01
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1.01
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1.01
02019	t-Amyl methyl ether	994-05-8	0.026	0.001	mg/kg	1.01
02020	t-Butyl alcohol	75-65-0	0.13	0.020	mg/kg	1.01
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1.01
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1.01
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1.01
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1.01
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1.01
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1.01

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01725	TPH-GRO - Soils	N. CA LUFT Gasoline method	1	05/04/2004 06:41	Deborah S Garrison	25
01428	Methanol and Ethanol	SW-846 8015B (modified)	1	05/05/2004 03:11	Tiffany A George	1
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	05/04/2004 02:03	Anastasia Papadopoulos	1.01
00374	GC/MS VOA Soil Prep	SW-846 5030A	1	05/03/2004 23:47	Anastasia Papadopoulos	n.a.
00380	Direct Injection Solids Ext	SW-846 8015B	1	05/03/2004 19:00	Tiffany A George	1
01150	GC VOA Soil Prep	SW-846 5035	1	04/30/2004 15:34	Eric L Vera	n.a.



# Analysis Report

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Lancaster Laboratories Sample No. SW 4264652

MW-3A-S-6-040429

Grab

Soil

Facility# 90499

SAIC

404 Soquel Ave Santa Cruz T0608700233 NA

Collected: 04/29/2004 09:11 by KB

Account Number: 11255

Submitted: 04/30/2004 10:30

Reported: 05/07/2004 at 13:21

Discard: 06/07/2004

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CA3A6



# Analysis Report

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Lancaster Laboratories Sample No. SW 4264653

MW-3A-S-9-040429 Grab Soil  
Facility# 90499 SAIC  
404 Soquel Ave Santa Cruz T0608700233 NA  
Collected: 04/29/2004 09:39 by KB

Account Number: 11255

Submitted: 04/30/2004 10:30  
Reported: 05/07/2004 at 13:21  
Discard: 06/07/2004

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

CA3A9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01725	TPH-GRO - Soils	n.a.	N.D.		1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
01428	Methanol and Ethanol						
01429	Ethanol (by Direct Injection)	64-17-5	N.D.	0.20		mg/kg	1
01431	Methanol (by Direct Injection)	67-56-1	N.D.	0.20		mg/kg	1
07361	BTEX+5 Oxygenates+EDC+EDB						
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005		mg/kg	0.99
02017	di-Isopropyl ether	108-20-3	N.D.	0.001		mg/kg	0.99
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001		mg/kg	0.99
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001		mg/kg	0.99
02020	t-Butyl alcohol	75-65-0	N.D.	0.020		mg/kg	0.99
05460	Benzene	71-43-2	N.D.	0.0005		mg/kg	0.99
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001		mg/kg	0.99
05466	Toluene	108-88-3	N.D.	0.001		mg/kg	0.99
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001		mg/kg	0.99
05474	Ethylbenzene	100-41-4	N.D.	0.001		mg/kg	0.99
06301	Xylene (Total)	1330-20-7	N.D.	0.001		mg/kg	0.99

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01725	TPH-GRO - Soils	N. CA LUFT Gasoline method	1	05/04/2004	07:18	Deborah S Garrison	25
01428	Methanol and Ethanol	SW-846 8015B (modified)	1	05/05/2004	03:51	Tiffany A George	1
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	05/04/2004	02:35	Anastasia Papadopoulos	0.99
00374	GC/MS VOA Soil Prep	SW-846 5030A	1	05/03/2004	23:48	Anastasia Papadopoulos	n.a.
00380	Direct Injection Solids Ext	SW-846 8015B	1	05/03/2004	19:00	Tiffany A George	1
01150	GC VOA Soil Prep	SW-846 5035	1	04/30/2004	15:37	Eric L Vera	n.a.



# Analysis Report

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Lancaster Laboratories Sample No. SW 4264653

MW-3A-S-9-040429 Grab Soil  
Facility# 90499  
404 Soquel Ave Santa Cruz T0608700233 NA  
Collected: 04/29/2004 09:39 by KB SAIC

Account Number: 11255

Submitted: 04/30/2004 10:30  
Reported: 05/07/2004 at 13:21  
Discard: 06/07/2004

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

CA3A9



# Analysis Report

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Lancaster Laboratories Sample No. SW 4264654

MW-3A-S-15-040429 Grab Soil  
Facility# 90499 SAIC  
404 Soquel Ave Santa Cruz T0608700233 NA  
Collected: 04/29/2004 09:46 by KB

Account Number: 11255

Submitted: 04/30/2004 10:30  
Reported: 05/07/2004 at 13:21  
Discard: 06/07/2004

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

CAA15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01725	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
01428	Methanol and Ethanol					
01429	Ethanol (by Direct Injection)	64-17-5	N.D.	0.20	mg/kg	1
01431	Methanol (by Direct Injection)	67-56-1	N.D.	0.20	mg/kg	1
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	0.005	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01725	TPH-GRO - Soils	N. CA LUFT Gasoline method	1	05/04/2004 07:54	Deborah S Garrison	25
01428	Methanol and Ethanol	SW-846 8015B (modified)	1	05/05/2004 04:05	Tiffany A George	1
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	05/04/2004 03:05	Anastasia Papadopoulos	1
00374	GC/MS VOA Soil Prep	SW-846 5030A	1	05/03/2004 23:49	Anastasia Papadopoulos	n.a.
00380	Direct Injection Solids Ext	SW-846 8015B	1	05/03/2004 19:00	Tiffany A George	1
01150	GC VOA Soil Prep	SW-846 5035	1	04/30/2004 15:41	Eric L Vera	n.a.



# Analysis Report

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Page 2 of 2

Lancaster Laboratories Sample No. SW 4264654

MW-3A-S-15-040429

Grab

Soil

Facility# 90499

SAIC

404 Soquel Ave Santa Cruz T0608700233 NA

Collected: 04/29/2004 09:46 by KB

Account Number: 11255

Submitted: 04/30/2004 10:30

Reported: 05/07/2004 at 13:21

Discard: 06/07/2004

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CAA15



# Analysis Report

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Page 1 of 2

Lancaster Laboratories Sample No. SW 4264655

MW-3A-S-19-040429 Grab Soil  
Facility# 90499 SAIC

404 Soquel Ave Santa Cruz T0608700233 NA

Collected: 04/29/2004 09:55 by KB Account Number: 11255

Submitted: 04/30/2004 10:30  
Reported: 05/07/2004 at 13:21  
Discard: 06/07/2004

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

CAA19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01725	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
01428	Methanol and Ethanol					
01429	Ethanol (by Direct Injection)	64-17-5	N.D.	0.20	mg/kg	1
01431	Methanol (by Direct Injection)	67-56-1	N.D.	0.20	mg/kg	1
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	0.003	0.0005	mg/kg	1.01
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1.01
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1.01
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1.01
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1.01
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1.01
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1.01
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1.01
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1.01
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1.01
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1.01

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01725	TPH-GRO - Soils	N. CA LUFT Gasoline method	1	05/04/2004 08:31	Deborah S Garrison	25
01428	Methanol and Ethanol	SW-846 8015B (modified)	1	05/05/2004 04:18	Tiffany A George	1
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	05/04/2004 03:36	Anastasia Papadopoulos	1.01
00374	GC/MS VOA Soil Prep	SW-846 5030A	1	05/03/2004 23:51	Anastasia Papadopoulos	n.a.
00380	Direct Injection Solids Ext	SW-846 8015B	1	05/03/2004 19:00	Tiffany A George	1
01150	GC VOA Soil Prep	SW-846 5035	1	04/30/2004 15:48	Eric L Vera	n.a.



# Analysis Report

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Page 2 of 2

Lancaster Laboratories Sample No. SW 4264655

MW-3A-S-19-040429

Grab

Soil

Facility# 90499

SAIC

404 Soquel Ave Santa Cruz T0608700233 NA

Collected: 04/29/2004 09:55 by KB

Account Number: 11255

Submitted: 04/30/2004 10:30

Reported: 05/07/2004 at 13:21

Discard: 06/07/2004

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CAA19



## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 05/07/04 at 01:21 PM

Group Number: 894218

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 041240030A	Sample number(s): 4264652-4264655							
Ethanol (by Direct Injection)	N.D.	200.	ug/kg	95		85-121		
Methanol (by Direct Injection)	N.D.	200.	ug/kg	112		79-117		
Batch number: 04124A34A	Sample number(s): 4264652-4264655							
TPH-GRO - Soils	N.D.	1.0	mg/kg	110		67-119		
Batch number: D041181AB	Sample number(s): 4264652-4264655							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/kg	97		75-125		
di-Isopropyl ether	N.D.	1.	ug/kg	88		70-129		
Ethyl t-butyl ether	N.D.	1.	ug/kg	93		71-124		
t-Amyl methyl ether	N.D.	1.	ug/kg	92		74-117		
t-Butyl alcohol	N.D.	20.	ug/kg	86		51-160		
Benzene	N.D.	0.5	ug/kg	94		83-118		
1,2-Dichloroethane	N.D.	1.	ug/kg	89		76-126		
Toluene	N.D.	1.	ug/kg	88		81-116		
1,2-Dibromoethane	N.D.	1.	ug/kg	92		77-114		
Ethylbenzene	N.D.	1.	ug/kg	87		82-115		
Xylene (Total)	N.D.	1.	ug/kg	92		82-117		

### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 041240030A	Sample number(s): 4264652-4264655								
Ethanol (by Direct Injection)	76	80	73-109	5	20				
Methanol (by Direct Injection)	102	107	61-118	5	20				
Batch number: 04124A34A	Sample number(s): 4264652-4264655								
TPH-GRO - Soils	95	80	39-118	17	30				
Batch number: D041181AB	Sample number(s): 4264652-4264655								
Methyl Tertiary Butyl Ether	88	91	57-136	2	30				
di-Isopropyl ether	82	84	55-132	1	30				
Ethyl t-butyl ether	87	89	58-127	1	30				
t-Amyl methyl ether	83	86	58-126	3	30				
t-Butyl alcohol	60	67	38-160	9	30				
Benzene	90	89	52-141	2	30				
1,2-Dichloroethane	82	84	57-137	1	30				
Toluene	85	83	45-142	3	30				
1,2-Dibromoethane	81	84	61-125	2	30				

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 05/07/04 at 01:21 PM

Group Number: 894218

### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethylbenzene	83	81	40-143	3	30				
Xylene (Total)	88	87	40-143	2	30				

### Surrogate Quality Control

Analysis Name: Methanol and Ethanol  
Batch number: 041240030A  
Acetone

4264652	89
4264653	94
4264654	92
4264655	76
Blank	98
LCS	100
MS	87
MSD	90

Limits: 64-128

Analysis Name: TPH-GRO - Soils  
Batch number: 04124A34A  
Trifluorotoluene-F

4264652	81
4264653	88
4264654	78
4264655	73
Blank	112
LCS	113
MS	89
MSD	98

Limits: 71-122

Analysis Name: BTEX+5 Oxygenates+EDC+EDB  
Batch number: D041181AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4264652	101	86	87	84
4264653	101	88	86	85
4264654	102	84	89	85
4264655	104	88	93	70
Blank	98	88	86	83
LCS	98	92	86	81
MS	96	86	87	80
MSD	99	87	86	80

Limits: 70-129

70-121

70-130

70-128

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

### Quality Control Summary

Client Name: ChevronTexaco  
Reported: 05/07/04 at 01:21 PM

Group Number: 894218

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Chevron California Region Analysis Request/Chain of Custody



Acct. #: 1255 For Lancaster Laboratories use only  
Sample #: 42604052-55

SCR#:

Facility #: Quipon Service Station 9-0499

Site Address: 404 Soquel Ave, Santa Cruz, CA

Chevron PM: Mark Lettorey Lead Consultant: SWC

Consultant/Office: Santa Cruz, CA

Consultant Pjt. Mgr.: Joseph Muzzio

Consultant Phone #: (831) 465-6908 Fax #: (831) 465-6909

Sampler: Kim Buckelew

Service Order #: ☐ Non SAR:

Office Analyses Requested

Preservation Codes

Preservative Codes  
H = HCl T = Thiourea  
N = HNO<sub>3</sub> B = NaOH  
S = H<sub>2</sub>SO<sub>4</sub> O = Other

☐ J value reporting needed  
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation

☐ Confirm highest hit by 8260

☐ Run oxy's on highest hit

☐ Run oxy's on all hits

Comments / Remarks

Field Point Name	Matrix	Repeat Sample	Top Depth	Year	Month	Day	Time Collected	New Field PM	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 <input checked="" type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GRO	TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup	8260 full scan	Oxygenates <u>Fuel (ethanol)</u>	Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>	8015 Methanol	Preservative Codes
MW-3A-6	Soil	—	6	2004	April	29	0911	—	X		1	X	X			X	X	X	
MW-3A-9	Soil	—	9	2004	April	29	0909	—	X		1	X	X			X	X	X	
MW-3A-15	Soil	—	15	2004	April	29	0946	—	X		1	X	X			X	X	X	
MW-3A-19	Soil	—	19	2004	April	29	0955	—	X		1	X	X			X	X	X	
LAST LINE	K. Buckelew	07/10/04																	

Turnaround Time Requested (TAT) (please circle)

STD. TAT 24 hour 72 hour 48 hour 4 day 5 day

Data Package Options (please circle if required)

QC Summary Type I - Full ☐ Coelt Deliverable not needed

Type VI (Raw Data) WIP (RWQCB) Disk

Relinquished by: Kim Buckelew Date: 07/29/04 Time: 0730 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by Commercial Carrier: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

UPS FedEx Other \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: Joan Pota Date: 7/30/04 Time: 1030

Temperature Upon Receipt: 5.0 °C Custody Seals Intact? Yes ☐ No ☒